

No.

2200

4

IN THE

United States Circuit Court of Appeals

FOR THE

NINTH CIRCUIT.

UNITED STATES OF AMERICA,

Appellant.

vs.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Appellees.

TRANSCRIPT OF RECORD.

*Upon Appeal from the United States District Court
for the Eastern District of Washington,
Northern Division.*

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J. D. MONCKTON,
CLERK

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NAMES AND ADDRESSES OF SOLICITORS OF
RECORD.

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Federal Building, Spokane, Washington.

E. C. MACDONALD, Esquire, Assistant United States
Attorney, Federal Building, Spokane, Washington.

E. W. BURR, Special Assistant to the United States
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Solicitors for Appellant.

SMITH & GRESHAM, Conconully, Washington,

HAPPY, CULLEN, LEE & HINDMAN, Hyde Block,
Spokane, Washington,

Solicitors for Appellees.

No. 1271.

*In the District Court of the United States, Eastern Dis-
trict of Washington, Northern Division.*

UNITED STATES OF AMERICA,

Complainant,

v's.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Defendants.

BILL OF COMPLAINT.

To the Honorable Judge of the District Court of the
United States for the Eastern District of Washington,
sitting in equity:

Comes now the United States of America, by Oscar
Cain, United States Attorney, and E. C. Macdonald,
Assistant United States Attorney for the Eastern Dis-
trict of Washington, and brings this its bill against
W. S. Bennett and Josephine Bennett, his wife, and
thereupon plaintiff says:

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No. 1271.

In the District Court of the United States, Eastern District of Washington, Northern Division.

UNITED STATES OF AMERICA,

Complainant,

vs.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Defendants.

BILL OF COMPLAINT.

To the Honorable Judge of the District Court of the United States for the Eastern District of Washington, sitting in equity:

Comes now the United States of America, by Oscar Cain, United States Attorney, and E. C. Macdonald, Assistant United States Attorney for the Eastern District of Washington, and brings this its bill against W. S. Bennett and Josephine Bennett, his wife, and thereupon plaintiff says:

I.

That this action is prosecuted at the request of the Secretary of the Interior and under the direction of the Attorney General of the United States.

II.

That the defendants, at all the times hereinafter mentioned were, and now are, husband and wife, residing in Okanogan County, State of Washington.

III.

That under and by virtue of an Act of Congress entitled, "An Act appropriating the receipts from the sale and disposal of public lands in certain states and territories to the construction of irrigation works for the reclamation arid lands," approved June 17, 1902 (32 Stat. L. 388), there have been examined, surveyed, located, and are now in active operation, extensive irrigation works for the storage, diversion and development of waters for the reclamation of arid lands in Okanogan County, which is commonly known as the Okanogan Project.

IV.

That the plaintiff has availed itself of the provisions of an Act of the legislature of the State of Washington, entitled, "An act relative to the appropriation of waters of the state for irrigation purposes, granting to the United States the right of exercising the power of eminent domain in acquiring lands, water and other property for rights-of-way, and for reservoir and other irrigation woks, granting to the United States certain rights in state lands and waters of the state, relating to water users's associations, and declaring an emergency,"

approved March 4, 1905 (Laws 1905, p. 180), and by virtue of and in compliance therewith has appropriated large quantities of water in Okanogan County, which is being distributed, stored and developed.

V.

That plaintiff, in the year 1905, and pursuant to the two acts aforesaid, appropriated all of the unappropriated waters of Salmon River, in Okanogan County, for the purposes aforesaid; that the works necessary for the utilization of the water so appropriated and stored, have been constructed and the said waters have been put and devoted to beneficial uses in accordance with law to a large number of persons occupying adjacent land, which, without such water, would be valueless and incapable of cultivation; that the amount of water available from all sources of supply for the benefit of such water right applicants in the Okanogan Project during the year 1911 was found to be insufficient and there was a shortage of water during the latter portion of said irrigation season.

VI.

That the defendants claim to be the owners of and are in possession of the following described lands in Okanogan County, Washington, to-wit: The West Half of the Southeast Quarter of Section Thirty-six (36), Township Thirty-four (34), and the Southwest Quarter of the Northwest Quarter and Lot Two (2), of Section One (1), Township Thirty-three (33) North of Range Twenty-five (25), East of the Willamette Meridian.

VII.

That of the lands just described there are susceptible

to irrigation not to exceed fifty (50) acres; that such lands require not more than two and a half ($2\frac{1}{2}$) acre feet per acre of water to sufficiently and properly irrigate the same; that the use of a greater amount of water is not only unnecessary, but absolutely detrimental to the growing of crops thereon; that notwithstanding this, the defendants have unnecessarily, wastefully and uselessly diverted, consumed and used of and from the waters of the said Salmon River about eleven (11) acre feet per acre of water in each season, thereby depriving the plaintiff of water which it could and otherwise would have used for the necessary and beneficial purposes aforesaid.

VIII.

That by reason of such unnecessary diversion of water by the defendants, the plaintiff and those depending upon it for their supply of water are greatly damaged in this: That plaintiff is unable to furnish a sufficient amount of water to irrigate the lands of such persons, whereby a large area of land, which otherwise could by plaintiff be supplied with an adequate amount of water for irrigation purposes, is deprived of a sufficient amount to properly cultivate and improve the same.

IX.

That the defendants threaten to, and will, unless restrained by an order from this Honorable Court, continue to divert large quantities of water in excess of what they are rightfully entitled and can beneficially use, and that as a result thereof a large number of persons will, during the irrigation season of 1912, and thereafter, be deprived of a sufficient amount of water

to properly cultivate their lands; that such lands so deprived of water will be, at least in part, rendered unfit for cultivation and valueless.

X.

That the point in the said Salmon River at which the defendants divert, and will continue to divert, the waters as aforesaid, is above the works of the plaintiff from which it supplies the water to the lands hereinbefore referred to, by reason whereof plaintiff is unable to exercise any control of such water and cannot prevent the defendants from such diversion, save by an injunction of this court.

XI.

That plaintiff is remediless at law, and no plain, adequate or speedy remedy may be afforded, save in a tribunal exercising chancery powers.

IN CONSIDERATION WHEREOF, and forasmuch as plaintiff cannot have any adequate relief except in this court, and to the end, therefore, that the defendants may, if they can, show why plaintiff should not have the relief prayed for, and may make a full and adequate disclosure of all matters aforesaid, and according to the best and utmost of their remembrance, knowledge, information and belief, full, true, direct, and perfect answer make to the matters hereinbefore stated and charged, but not under oath, an answer under oath being expressly waived.

And plaintiff prays that your Honor may, pending the determination of this action, grant a temporary injunction, commanding the defendants, and each of them, their, and each of their agents, servants and employees,

to abstain and refrain from diverting, consuming, using or taking from the said Salmon River any water in excess of two and a half ($2\frac{1}{2}$) acre feet per acre in any irrigation season for the irrigation of their said lands, and that on the final hearing of this cause such injunction be made permanent.

MAY IT PLEASE YOUR HONOR to grant unto plaintiff a writ of subpoena to the said W. S. Bennett and Josephine Bennett, his wife, and to such others as in the discretion of your Honor appear necessary for the hearing and determination of this case, commanding them on a day certain to appear and answer unto this bill of complaint and to abide and perform such order and decree in the premises as to the court may seem proper and required by the principles of equity and good conscience.

(Signed) OSCAR CAIN,

United States Attorney.

(Signed) E. C. MACDONALD,

Assistant United States Attorney.

Indorsements: Bill of Complaint in Equity.

Filed January 15, 1912.

W. H. HARE, Clerk.

By S. M. RUSSELL, Deputy.

No. 1271.

In the District Court of the United States, Eastern District of Washington, Northern Division.

UNITED STATES OF AMERICA,

Complainant,

vs.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Defendants.

ANSWER.

Come now W. S. Bennett and Josephine Bennett, his wife, and by way of answer to the plaintiff's complaint herein, alleges:

I.

That they admit paragraphs One, Two, Three and Six of said complaint.

II.

Admit that the plaintiff has availed itself of the Act of Legislature of the State of Washington, approved March 4, 1905, as alleged in paragraph IV of the complaint herein, but deny that they have any information sufficient to form a belief as to what, if any, water the plaintiff has appropriated.

III.

Answering paragraph V of the complaint, the defendants allege that they have reason to believe, and do believe, that the plaintiff has appropriated, or attempted to appropriate, all of the unappropriated waters of Salmon Creek, as alleged in paragraph V of the complaint herein, and admit that the plaintiff has constructed extensive works for the utilization of said waters, and the

defendants deny that they have any knowledge or information sufficient to form a belief as to any other matters or things set up in said paragraph V, and therefore deny the same and the whole thereof, except that the lands referred to in said paragraph are dry and arid, and will not produce crops in paying quantities without water for artificial irrigation.

IV.

Answering paragraph VII of the complaint, the defendants deny that they have but fifty acres susceptible to irrigation, and deny that two and one-half acre feet per acre of water is sufficient to irrigate the same, and deny that they have used eleven acre feet per acre of water from Salmon River or any other quantity in excess of one miner's inch under six inch pressure per acre to irrigate their said lands, and deny that they have at any time deprived the plaintiff of any water whatever to which it was entitled. And further answering said paragraph, the defendants allege that they have under actual irrigation, on their said lands, 62.82 acres, and the same has been under irrigation from the waters of Salmon River for something like twenty-five years last past, and that one miner's inch per acre of the waters of said stream are absolutely necessary and required for the successful growing of crops on said lands.

V.

Answering paragraph VIII of the complaint, the defendants deny that they have ever at any time used any water belonging to the United States, or to which it was entitled, and deny that they have ever used any water except that which lawfully and rightfully belongs to

them, and deny that they ever used any quantity in excess of their actual needs, and deny that plaintiff has suffered any damage by reason of any use of the waters of Salmon River by the defendants.

VI.

Defendants deny paragraph IX of the complaint, and the whole thereof.

VII.

Answering paragraph X of the complaint, the defendants admit that their point of diversion is above the diversion works of the plaintiff, from which it supplies a portion of the lands under the Okanogan Project, but allege that their said ditch and diversion works were constructed many years prior to any rights by the United States of America, to the waters of said Salmon River, and many years prior to the construction by the United States of America of any diversion works, or the taking of any initial steps looking thereto, and they admit that they have at all times insisted upon controlling their own diversion works, and diverting water to which they are lawfully entitled and no more.

VIII.

The defendants deny each and every other allegation, matter and thing, and the whole thereof, in the complaint contained, except such as herein specifically qualified or admitted.

AFFIRMATIVE DEFENSE AND CROSS-
COMPLAINT.

By way of affirmative defense and cross-complaint, against the plaintiff, the defendants complain and allege:

I.

That the defendants are husband and wife.

II.

That the defendants are the owners in fee simple, in possession, and entitled to the possession, of the following described real estate in Okanogan County, State of Washington, to-wit: The west half of the southeast quarter of Section 36, Township 34 north; the southwest quarter of the northwest quarter, and Lot 2 in Section 1, Township 33, North of Range 25, E. W. M.

III.

That some time prior to the year 1890, one Nathan Smye, who had all the qualifications of a homestead settler and entryman, under the homestead laws of the United States, made homestead settlement on the above described lands of the defendants, and thereafter continued to reside upon and cultivate the same, and on the 13th day of October, 1898, the United States issued to him its patent therefor.

IV.

That in the year 1890, as defendants are informed and believe, said Nathan Smye constructed the Spring Coulee Irrigation Ditch, which is the same and identical ditch now owned and used by the defendants and complained of by the plaintiff. That the said ditch as constructed by the said Smye had a carrying capacity of more than two cubic feet of water per second of time,

and the said Smye, upon the completion of said ditch, in the year aforesaid, diverted the waters of said Salmon River through said ditch, to the extent of two cubic feet per second of time, and used the same upon the said lands now owned by the defendants for the irrigation of hay, grain and vegetable crops thereon.

V.

That the said Smye proceeded with all diligence to bring his said lands under irrigation, and at the time the defendants purchased the same in the year 1902, there was under irrigation thereon something like fifty acres. That about the year 1903 the defendants increased the irrigable area of their said lands to 62.82 acres.

VI.

That the defendants and their grantor and predecessor in interest have always devoted the said lands to the growing of timothy, alfalfa and clover hay, grain and vegetables, and a small family orchard. That said lands are dry and arid and will not produce any of said crops in paying quantities without the use of water for artificial irrigation, and one miner's inch of water, under a six inch pressure from the waters of Salmon Creek, are absolutely necessary to irrigate said land and crops.

VII.

That the defendants intend permanently to devote their said lands to the growing of timothy, clover and alfalfa hay, grain, roots and vegetables, and a small family orchard. That for more than twenty years last past the defendants and their grantor and predecessor in interest have diverted and used that amount of water

from the waters of Salmon Creek, through said Spring Coulee Ditch, for the irrigation of said crops, on their said lands, and they are the owners of an undivided one-eighth interest in said ditch, and are the owners of the first and prior right to divert two cubic feet of water per second of time from the waters of said Salmon River, for irrigation, stock and domestic purposes.

VIII.

In pleading the miner's inch, and cubic feet per second of time of water herein, the defendants have pleaded on the basis of forty miner's inches under a six inch pressure, equaling one cubic foot per second of time, and that one miner's inch per acre is necessary at the land of the defendants, instead of at the point of diversion.

IX.

That at the time of the construction of said ditch by the defendants' grantor and predecessor in interest, and at the time he diverted and used the waters of Salmon Creek for the irrigation of said land as aforesaid, said waters were unappropriated public waters of the United States, subject to appropriation, and the point of appropriation and diversion was on public land of the United States.

WHEREFORE, by reason of the law and the premises, the defendants pray judgment as follows:

I.

That they be decreed to be the owners of and entitled to one-eighth interest in and to the said Spring Coulee ditch, and the first and prior right to divert and use two cubic feet of water per second of time from the waters of Salmon Creek for the irrigation of their said lands, and for stock and domestic purposes thereon.

II.

That their title thereto be forever quieted.

III.

That the plaintiff, and all persons claiming through or under it, be perpetually and forever enjoined from in any manner interfering with the defendants in their right to divert and use two cubic feet of water per second of time from the waters of Salmon Creek, and for their costs and disbursements in this action.

IV.

Defendants pray for general relief.

(Signed) SMITH & GRESHAM,
Attorneys for Defendants.

No. 1271.

*In the District Court of the United States, Eastern Dis-
trict of Washington, Northern Division.*

UNITED STATES OF AMERICA,

Complainant,

vs.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Defendants.

AFFIDAVIT OF W. S. BENNETT.

UNITED STATES OF AMERICA,

Eastern District of Washington—ss.

I, W. S. Bennett, of Okanogan County, Washington, being first duly sworn, upon oath depose and say:

1. That I am one of the defendants above named, and make this affidavit for and on behalf of myself and for and on behalf of my co-defendant, Josephine Bennett.

2. That I and my co-defendant are the owners by mesne conveyances of the following described real estate in Okanogan County, Washington, to-wit: The west half of the southeast quarter of Section 36, Township 34 north; the southwest quarter of the northwest quarter, and Lot 2 in Section One, Township 33, North of Range 25, E. W. M., which is community property. That said lands are dry and arid, and require water for irrigation to produce crops in paying quantities.

3. That some twenty or twenty-five years ago, one Smye made homestead settlement on the above lands of the defendants, and continuously thereafter maintained his residence thereon; and when said lands were thrown open for homestead entry said Smye made homestead entry thereof at the proper United States Land Office and complied with all the laws of the United States relative thereto, and homestead patent duly issued to him on October 13, 1898.

4. That about the year 1890, said Smye constructed what is known as the Spring Coulee Irrigation Ditch (the ditch referred to in this action) and by means of which he diverted the waters of Salmon River to and upon the above described lands of the defendants. That at the time said Smye constructed said ditch and diverted the waters of Salmon River as aforesaid, the lands over which said ditch was constructed was public lands of the United States, and the waters of said Salmon River unappropriated public waters of the United States, and for the twenty-five years last past the said lands of the defendants have been irrigated from the waters of said Salmon River through said ditch.

5. That some two years after said Smye constructed said ditch and diverted the waters of Salmon River as aforesaid, and on the 11th day of August, 1892, he recorded a notice of water right to 150 miner's inches of water from said Salmon River, diverted through said ditch, and conveyed it onto the said lands of the defendants; that the waters of said Salmon River so diverted by the defendants, and their grantor and predecessor in interest, were at all times herein used for a beneficial purpose, namely, the irrigation of said lands and for stock and domestic purposes. That the crops grown on said lands by the defendants and their predecessor in interest have at all times been timothy, alfalfa and clover, hay, fruits, grain and vegetables, and the amount of water used and necessary to be used on said lands for the irrigation of said crops has at all times been, and still is, one miner's inch under a six inch pressure per acre, and the amount of land so irrigated by the defendants and their grantor and predecessor in interest is 63.82 acres.

6. That there is a natural swamp on the said lands of the defendants, consisting of 20.22 acres; that said swamp has existed there from time immemorial, and was not created nor augmented by any wasteful use of the waters of said Salmon River, by the defendants or their predecessor in interest, or any other person.

7. That three acre feet of water under the Government Okanogan Project is practically one-half of the miner's inch under a six inch pressure, but it is well understood and universally conceded throughout the Okanogan country, and especially in the vicinity of the

lands of the defendants, that one miner's inch of water under a six inch pressure is necessary and required properly to irrigate the kinds of crops grown by the defendants on said lands, namely, timothy, alfalfa and clover, hay, grain and vegetables, and it is also well understood and generally conceded that such crops require at least twice as much water for irrigation as orchards. That the lands under the Okanogan Irrigation Project are devoted exclusively to orchard purposes, having been recently set to young trees.

8. That the defendants are the owners by purchase from said Smye of the lands hereinbefore described, and all of said Smye's water rights and rights in and to said Spring Coulee Irrigation Ditch.

9. That some nine or ten years ago the defendants, with others, enlarged said ditch, for the purpose of accommodating and irrigating lands owned by other persons lower down in said Spring Coulee, and the defendants are the absolute owners of a one-eighth interest in and to said ditch.

10. That said ditch, and ditch rights, of the defendants, and their right to divert and use the waters of said Salmon Creek, were acquired and perfected long prior to any rights initiated or acquired by the United States of America, but the United States, acting through its Project Engineer, Fred Bonstedt, has wrongfully and arbitrarily and persistently interfered with the head gate and intake of the defendants, seeking to limit them to $2\frac{1}{2}$ or 3 acre feet of water, well knowing that the defendants are the rightful owners of a greater amount

of water, namely, substantially two cubic feet per second of time, and well knowing that the said lands of the defendants require that amount of water for the irrigation of the defendants' crops growing thereon.

11. The defendants have never used or claimed any right to use or divert more than two cubic feet of water per second of time, and have never used or claimed any right to use any water owned by the United States, or any other person, and have never interfered with any works or water belonging to the United States which it has acquired for use in connection with the Okanogan Irrigation Project, and does not claim any right to do so, but only ask that they be allowed to use their own water, and their own ditch.

(Signed) W. S. BENNETT.

Subscribed and sworn to before me this 22d day of January, A. D. 1912.

(Signed) P. M. SNIDER,

Notary Public, residing at Okanogan, Washington.

My commission expires Feb. 14, 1913.

(Notarial Seal.)

No. 1271.

In the District Court of the United States, Eastern District of Washington, Northern Division.

UNITED STATES OF AMERICA,

Plaintiff.

vs.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Defendants.

AFFIDAVIT OF G. H. WHEELER.

UNITED STATES OF AMERICA,
Eastern District of Washington—ss.

I, G. H. Wheeler, being first duly sworn, upon oath depose and say:

I.

That I am now, and for more than fifteen years last past, have been, a surveyor and civil engineer.

II.

That on the 21st, 22d and 23d days of June; 1909, I made an accurate and actual survey in the field of the irrigated lands of W. S. Bennett and Josephine Bennett, his wife, in Okanogan County, Washington, to-wit:

The west half of the southeast quarter of Section 36, Township 34, north, Range 25, E. W. M., and Lot 2, and the southwest quarter of the northeast quarter of Section 1, Township 33, north, of Range 25, East, and I found under actual irrigation thereon 62.82 acres.

III.

I also found on said lands a natural swamp consisting of 20.22 acres.

IV.

I found said irrigated lands of the said defendants devoted to the growing of timothy, clover and alfalfa hay, grain, vegetables and a small family orchard.

V.

I am also familiar with irrigation in the Okanogan country, and know the duty of water for irrigation therein, and know the duty of water on the said lands of the defendants, and know that one miner's inch under

a six inch pressure per acre is necessary and required to irrigate said lands of the defendants.

VI.

I further state that in my opinion it is necessary for the said defendants to divert from Salmon River two cubic feet of water per second of time, in order sufficiently and properly to irrigate their said lands and for stock and domestic purposes thereon.

(Signed) G. H. WHEELER.

Subscribed and sworn to before me this 22d day of January, A. D. 1912.

(Signed) P. D. SMITH,

Notary Public, residing at Conconully, Washington.

(Notarial Seal.)

Endorsements: Answer of Defendants and Counter Affidavits.

Filed February 1, 1912.

W. H. HARE, Clerk.

By S. M. RUSSELL, Deputy.

No. 1271.

In the District Court of the United States, Eastern District of Washington, Northern Division.

UNITED STATES OF AMERICA,

Complainant,

vs.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Defendants.

REPLICATION TO THE ANSWER OF DEFENDANTS W. S. BENNETT AND JOSEPHINE BENNETT.

This replicant, saving and reserving to itself all and all manner of advantage of exception which may be had and taken to the manifold errors, uncertainties and insufficiencies of the answer of said defendants, for replication thereunto sayeth that it does and will ever maintain and prove its said bill to be true, certain and sufficient in the law to be answered unto by said defendants, and that the answer of said defendants is very uncertain, evasive and insufficient in the law to be replied unto by this replicant; without that, that any other matter or thing in the said answer contained material or effectual in the law to be replied unto, and not herein and hereby well and sufficiently replied unto, confessed, or avoided, traversed, or denied, is true; all which matters and things this replicant is ready to ever maintain and prove as this Honorable Court shall direct, and humbly as in and by its said bill it has already prayed.

(Signed) OSCAR CAIN,

United States Attorney.

(Signed) E. C. MACDONALD,

Assistant United States Attorney.

Endorsements: Replication.

Filed February 9, 1912.

W. H. HARE, Clerk.

By S. M. RUSSELL, Deputy.

No. 1271.

In the District Court of the United States, Eastern District of Washington, Northern Division.

UNITED STATES OF AMERICA,

Complainant,

vs.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Defendants.

ADMISSION OF SERVICE OF COPY OF PROPOSED BILL OF EXCEPTIONS.

We hereby admit the receipt of a copy of plaintiff's proposed Bill of Exceptions now on file herein.

Dated this 26th day of September, 1912.

(Signed) SMITH & GRESHAM,

Attorneys for Defendants.

Endorsements: Admission of Service of Copy of Proposed Bill of Exceptions.

Filed September 27th, 1912.

W. H. HARE, Clerk.

By S. M. RUSSELL, Deputy.

No. 1271.

In the District Court of the United States for the Eastern District of Washington, Northern Division.

UNITED STATES OF AMERICA,

Plaintiff,

vs.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Defendants.

Testimony of W. C. Muldrow.

Before Honorable Frank H. Rudkin, Judge Presiding.

Appearances:

For the Plaintiff,

Messrs. Cain & Macdonald and E. W. Burr.

For the Defendants,

Messrs Smith & Gresham and W. W. Hindman.

STATEMENT OF FACTS.

BE IT REMEMBERED, that this cause came on for trial this 31st day of May, 1912, at 10 o'clock a. m., before Honorable Frank H. Rudkin, judge presiding, the plaintiff being represented by Messrs. Cain & Macdonald and E. W. Burr, Esq., and the defendants appearing in person and by their attorneys, Mr. Smith, Esq., and W. W. Hindman, Esq.

THEREUPON the following proceedings were had and done, to-wit:

Mr. SMITH: If the Court please, at this time we should like to have the name Messrs. Happy, Cullen, Lee & Hindman associated for the defense.

The COURT: Very well; the Clerk is not here, but it will be so ordered.

Testimony of W. C. Muldrow.

W. C. MULDROW, a witness called and sworn on behalf of the Government, testified as follows:

DIRECT EXAMINATION.

By Mr. BURR:

Q. Your name, please?

A. W. C. Muldrow.

Q. What is your occupation, Mr. Muldrow?

A. Irrigation engineer.

Testimony of W. C. Muldrow.

Q. Will you state your experience in irrigation engineering, please?

A. Why, I began work with the Engineering Department of the Reclamation Service in 1903 in Arizona and Oregon; in that work until the fall of 1909. After that time I was engaged in private practice, that is, except for a brief period of about four months in the fall of 1905, I was out of the Government service, and I was back with them until 1909, and since that time in private practice in Okanogan County.

Q. How long in Okanogan County altogether?

A. Since November—well, I worked for the Reclamation Service on the Conconully dam in the summer season of 1909. Since that time——

Q. How much experience have you had in the measurement of water?

A. Well, I had charge of hydrographic work for the Reclamation Service in the summers of 1906 and 1907, the season of 1906 and 1907, about a year and a half in all exclusively. Besides that I have measured water more or less at all times during by experience in irrigation work.

Q. Have you had official connection as a commissioner of the County of Okanogan, water commissioner of the County of Okanogan?

A. I was appointed water commissioner in the spring of 1907, and served during that season.

Q. In such capacity, what were your duties?

A. Well, my duties were to measure the flow and regulate the headgates of all irrigation canals, taking

Testimony of W. C. Muldrow.

water out of Salmon Creek in such manner that each should get the amount of water to which he was entitled.

Q. Will you state where the Spring Coulee canal, so-called, is with reference to the Government irrigation project known as the Okanogan Project?

A. It takes water from Salmon Creek on the west side about three miles, I should judge—I don't know the exact distance—above the diversion weir of the Government main canal.

Q. Will you state where the lands of the defendant are with reference to the Spring Coulee canal headgate?

A. The lands of the defendant which lie along this Spring Coulee ditch and receive water from it are approximately—well, I never made any measurements to find out the exact distance, either.

Q. Roughly speaking?

A. Something about two miles below the headgate of the Spring Coulee ditch, I think.

Q. What is the area of the land under cultivation on defendant's ranch, if you are familiar with it?

A. I am not familiar enough to give definite figures; my understanding has always been about sixty acres.

Q. Never mind, I will prove that by another witness. Did you take any measurements of the water being received by Mr. Bennett, as water commissioner, or in any other capacity?

A. At one time I made a measurement of the water that was actually being diverted on Mr. Bennett's ranch, but not in the capacity as water commissioner.

Q. What amount of water was at that time flowing on the defendants' ranch?

Testimony of W. C. Muldrow.

A. The amount that was taken out of the ditch on his ranch was, according to my notes, taken at the time, 1.64 cubic feet per second.

Mr. SMITH: I did not quite hear that.

A. The amount was 1.64 cubic feet per second.

Q. Did you ever take any other measurements of the amount of water flowing from the Spring Coulee canal and on to the defendants' place?

A. No, I did not.

Q. Did you measure the amount of water being received by the Spring Coulee canal

A. Yes, a number of times.

Q. And what was that amount?

A. Well, that amount varied from around ten cubic feet down to 4.8 cubic feet.

The COURT: What canal is that?

Mr. SMITH: The Spring Coulee canal?

The COURT: Is that the Government canal?

Mr. BURR: No, that is the canal from which the defendant receives his water supply which takes it above the Government canal headgate.

Q. Did you ever compute the loss in transit from the headgate of the Spring Coulee canal to the defendant's place of diversion?

A. I did at one time.

Q. Will you state what that loss was?

A. Well, the measurements made at that time, the headgate flow was 4.88 cubic feet per second, according to meter measurement made as accurately as possible, and the loss down to the point of diversion on Mr. Ben-

Testimony of W. C. Muldrow.

nett's place was .7 of a cubic foot, the total percentage of loss about $14\frac{1}{2}$ per cent.

Q. Do you regard that as an excessive loss?

A. For ditches in ordinary condition in that country that is about a nominal, fairly conservative figure.

Q. What is the ordinary condition of ditches in that country; are they so constructed as to give due economy, the private ditches, to which I presume you are comparing this, are they so constructed to be economical in the use of water?

A. I believe that they are not.

Mr. SMITH: If the Court please, I believe the ditch in controversy is the only ditch that is in controversy in this case. I shall object to any other ditches.

The COURT: Will other parties take water out of this ditch except the defendant?

Mr. BURR: Yes, there are quite a number of parties use water out of this ditch. It seems to me that the loss from the headgate of the canal to the point of the defendant's diversion is in issue.

The COURT: What is this company, a corporation?

Mr. BURR: The defendant?

The COURT: No, this company you speak of.

Mr. BURR: It is incorporated. It is virtually a partnership ditch, and if the loss is approximately that of the ditches of the country it seems to me that the character of the ditches of the country is material in this point in this case.

The COURT: Read the question.

(Last question read).

Testimony of W. C. Muldrow.

The COURT: He may answer the question, although I think it would be better to confine it to this particular ditch.

A. As a rule the older ditches in the country are not very well constructed as to grade and alignment, and have generally a larger seepage loss than would be consistent with economy.

Q. What do the defects in the Spring Coulee ditch such as to make such a large loss of water consist of?

Mr. HINDMAN: I think that is objectionable, your honor, and improper.

Mr. BURR: The point of diversion, your honor, is the point of measurement, which has been the custom of the country in the Okanogan district with regard to contract with the Federal Government, is the point of diversion from the Salmon River.

The COURT: Is there a contract between the defendant and the——

Mr. BURR: This is the only person in the Okanogan country taking out of the river below our reservoir who has not a contract with this Government; and it seems to me that the condition of the canal from its point of diversion, which we would pray to make the point of measurement in the decree, in accordance with all the other contracts upon that ditch, it seems to me that the condition of the canal from that point to the headgate is strictly material.

The COURT: You may answer the question.

A. Well, the ditch in that stretch we have under consideration is to a large extent in pretty fair condition.

Testimony of W. C. Muldrow.

The only defects that would cause excessive loss by seepage are in one or two points, excessive grade causing erosion of the bottom and preventing the sealing-up process that saves seepage.

Q. Will you state the duty of water which is general in the Okanogan country in some detail?

A. The duty of water——

Mr. HINDMAN: I object to that, your honor; I cannot see how it is material.

The COURT: It is a pretty broad question, it seems to me.

Mr. BURR: If your honor please, I believe that the duty of water in a country is material evidence with regard to the duty of water on this particular tract of land. It seems to me that if there are contracts as to the duty of water throughout that country it is strictly material as to the amount of water which this defendant needs. The custom of the country is, I believe, good evidence.

Mr. HINDMAN: Our allegations are, your honor, that we have used this water for a period of twenty-five years, and that it has been put to a beneficial use. That if the prescription has not run against it, then it is a question as to what this kind and character of land which Mr. Bennett is putting this water on, is how much water it requires to irrigate it. It seems to me absolutely immaterial what contract the reclamation people have taken in.

The COURT: It seems to me that this question taking in the whole Okanogan country is too broad for the report or anything else. I am familiar enough with irri-

Testimony of W. C. Muldrow.

gation to know that it will go twice as far on some lands as on others. I presume that is as true in the Okanogan country as anywhere else.

Mr. BURR: I expect to prove the character of the land itself, and it seems to me it is competent evidence, and I think I can refer your honor to authorities.

The COURT: You may proceed. I am sitting here merely as a commissioner to take this testimony. I will throw out what I consider worthless.

Mr. HINDMAN: Take an exception to the ruling of the Court.

(Last question read).

A. Well, the duty of water as defined by the contract——

Q. I would like to amend that question, if I may, to lands similar to these; that will make that strictly relevant. What is the duty of water on land in the Okanogan country similar to that?

Mr. HINDMAN: I don't think the witness is qualified yet.

The COURT: I think he has at least testified to considerable knowledge of irrigation up there. You may answer.

A. Well, the duty of water as defined by the irrigation contract existing between the irrigation companies and the——

Mr. HINDMAN: I object to that as incompetent. The question of what the irrigation people may have contracted for does not prove the character of this land.

Testimony of W. C. Muldrow.

Mr. BURR: It proves the custom of the country in regard to the duty of water.

Mr. HINDMAN: I beg to differ with you. You cannot get the custom in a year or two. The question is as to the custom between parties, not customs by contract.

The COURT: I don't think so myself. You may answer the question.

A. Well, the contracts for water under the irrigation project there, which practically covers all of the land where such contracts exist, that is close to this land here, of two classes, the old water rights, so-called, which call for three acre feet at the point of diversion during the irrigation season, and the new contract or subscription contracts which the later lands watered by the Government have, which call for two and a half acre feet of water. The private companies, all the private companies over here in that vicinity generally contract for three acre feet.

Q. When those amounts are received and used upon the land, does that furnish sufficient water for practical irrigation?

Mr. HINDMAN: I am going to object, your honor, until he designates the purpose for which it is used, as to whether he knows. Every kind of grain and fruits, and so forth, requires different amounts.

The COURT: That is undoubtedly true.

Q. I will amend that to read first as to fruits.

A. There is no doubt in my judgment that it does.

Q. Is that sufficient as to grain?

A. It is.

Testimony of W. C. Muldrow.

Q. Is it sufficient for alfalfa and forage crops?

A. It is on certain lands.

Q. What kind of lands is it sufficient for alfalfa and forage crops?

A. On the heavier types of land which are not too porous, underlain by a too porous strata.

Q. Will you now describe so far as you are familiar with the defendant's lands the character of the soils upon the defendant's land?

Mr. SMITH: I object to that question, your honor; he has not shown that he knows.

The COURT: That part which is irrigated is the only part in controversy.

Mr. BURR: Yes, sir.

Mr. SMITH: The witness has not shown that he knows anything about the character of the soil.

Mr. SMITH: Q. Will you state, Mr. Muldrow, your familiarity, so far as you are familiar with it, of the lands of the defendant?

A. Why, I have been over the land a number of times, been across it, up and down the ditch there, making measurements. I have been out on it while it was being irrigated, and I know in pretty fair detail about the character of the soil.

Q. What is the character of the soil?

A. Well, it is in general, the volcanic ash soil that is common to all that country; some of it more or less gravelly; some of it has got large boulders in it in places.

Q. What does that character of soil require in the way of a water supply in the Okanogan country?

Testimony of W. C. Muldrow.

A. Well, as far as the actual quantity of water is concerned, that is actual quantity that has been used on any particular tract, there is very little data existing. That is, I mean in an individual case, on an individual tract. It is necessary to go to large bodies in order to determine anything about the actual quantity of water.

Q. Well, what is the best of your judgment as to that character of soil and its needs for water supply for alfalfa?

A. That also hinges in my judgment to some extent on the point at which the general policy would step in to forbid the use of an undue quantity of water upon any particular tract of land on account of the greater value of that quantity of water over an area.

The COURT: That is not the question here at all. That man has appropriated the water, and he is entitled to whatever is necessary to irrigate that land.

A. (Continuing) From that standpoint I would not consider myself competent to speak, to state the exact quantity of water that it would require to raise alfalfa on the defendant's land.

Q. Will you state the character of the defendant's land with regard to the manner in which that land is prepared for irrigation?

Mr. SMITH: If the court please, to save a point at this time we shall object to that question and any examination on that line for this reason, the Government is a junior appropriator—I believe that has not appeared from the evidence yet, but it is undisputed—is a junior appropriator, and the amount that the defendants have

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used for beneficial purposes is the test of his right so far as that particular point is concerned. While the defendant would not be permitted to change their works so as to make their use more wasteful than it was before the Government appropriated it, yet they cannot make him change it, as I understand.

The COURT: I think he is required to make a reasonable use of the water even as against a junior appropriator.

Mr. SMITH: But he is entitled, as we understand it, to maintain his same works.

The COURT: I think so; you may answer the question.

A. Read the question.

(Last question read).

A. Well, the land is irrigated according to the method that is generally known in irrigation practice as wild flooding.

Mr. SMITH: As what?

A. As wild flooding; that is, the water is simply turned out and allowed to flow in a general direction down across the land without any system of levees or regular furrow system.

Mr. BURR: If the Court please, I would like to read Section 6346 of the Code. (Mr. Burr then reads the section in question and argues the same to the Court).

The COURT: I don't care to consume time now. Try it on your own theory, and I will dispose of it according to mine.

Testimony of W. C. Muldrow.

Q. Mr. Muldrow, is there a run-off from Mr. Bennett's land during the irrigation season?

A. Well, Mr. Bennett's land lies in a coulee which is similar to the typical coulee of this country and slopes towards the center, and in the center there is a swamp of about fifteen acres or so, where the water stands in the irrigation season and runs off there and through a drain down at the lower end.

Q. Have you measured the amount of run-off from that lower end?

A. I did at one time measure the drainage from that swamp.

Q. At what figure did it compute?

A. It run a quarter of a cubic foot per second—twenty-four hundredths to be exact.

Q. Is Mr. Bennett's land properly leveled for irrigation in your judgment?

A. Its grades are not at all bad considering ordinary practice.

Q. Did you ever put any levels on that land?

A. No, simply from observation.

Mr. BURR: I would like to reserve the privilege of calling Mr. Muldrow again.

CROSS EXAMINATION.

By Mr. SMITH:

Q. Did I understand you to say that Mr. Bennett's land lies in a coulee?

A. You did.

Q. Would you explain to the Court as best you can the general contour of the country there; in other words,

Testimony of W. C. Muldrow.

make the Court see the land as nearly as you can, we will say from the Government reservoir clear down to Mr. Bennett's land.

A. Well, the Government reservoir is on Salmon creek, to the north, about twelve miles, I should judge, from the head of Spring Coulee. The creek runs almost south, slightly southeast, and the Okonogan river and the Spring Coulee, so-called, branches off from the Salmon creek canyon to the west, and at one time formed an ancient channel of Salmon creek to a point on the Salmon river several miles south.

Q. That is, you think there was at one time—Salmon creek or Salmon river as we call it, ran through Mr. Bennett's place?

A. Possibly.

Q. Now this coulee, as we call it, is a deep narrow cut between the mountains, isn't it?

A. Yes.

Q. And that extends from the reservoir down to where the creek, which is from Spring Coulee copper, isn't it?

A. Yes.

Q. And the cut extends on through Spring Coulee?

A. Yes.

Q. Now, about how wide is this little valley lying between those mountains?

A. It averages about a quarter of a mile or more.

Q. You think it will average that much?

A. Well, it depends. If you consider the strip of irrigated land it won't, because at Mr. Bennett's place the

Testimony of W. C. Muldrow.

strip of irrigated land does not take up the whole coulee.

Q. Now from the reservoir down for some nine miles there is no valley at all, is there; the mountains come square to the creek?

A. There is a slight, a small quantity of land along in there at different points.

Q. I wanted to ask you this question, Mr. Muldrow, if Spring Coulee is not more properly a fissure than a coulee?

A. No, it is in an erosive channel cut out by glacial action just about the same as other coulees.

Q. Do you know whether bedrock has been found in Spring Coulee at any place?

A. No, I have no knowledge of that.

Q. Do you know of any tests having been made at any time to find bedrock?

A. No.

Q. Did the United States Government surveys make tests?

A. Not to my knowledge.

Q. Were you at Conconully when they were driving the sheet piling for the reservoir?

A. Oh, yes, up at the dam there was such tests made.

Q. Was there any bedrock found up there?

A. At the center of the dam—I don't know, I wasn't there at the time that they were making the tests, and I don't remember the results of it.

Q. Well, the first site of the dam was abandoned, was it not, on account of no bedrock?

A. Not on account of no bedrock, but on account of

Testimony of W. C. Muldrow.

the porous and broken nature of the bedrock on one side of the abutment of the dam.

Q. Did I understand you to say that you were there when the sheet piling was being driven?

A. No, I was not.

Q. Have you any knowledge as to whether or not when they were driving the sheet piling there old logs and timber was struck by the sheet piling sixty feet below the surface of the earth?

A. Well, the sheet piling only extended thirty feet.

Q. Is that all?

A. That is all.

D. Did you strike logs and timber down there?

A. Why, I heard it said that logs were struck underneath. I wasn't there during the time. I came there the season after the sheet piling was put in; mere hearsay.

Q. Now you were over at Mr. Bennett's several times last summer, were you not, Mr. Muldrow?

A. I was.

Q. Were you there in the month of June, you think, or July?

A. I was probably there—I don't know that I was down on his place during June and July. I was there in August.

Q. Were you over there some time in June, we will say when Mr. Bennett was not at home, when you had a talk with Mrs. Bennett?

A. I was there at one time—I don't know the date; I could find it for you from my notes.

Q. I don't expect you to do that; the best you can. You remember the occasion, do you not?

Testimony of W. C. Muldrow.

A. I remember of talking to Mrs. Bennett on two different occasions up there.

Q. Well, on either of those occasions did you make any measurements or estimate of the water that Mr. Bennett had in his ditch?

A. On one of those two occasions I did; I have already testified to that.

Q. And that was the one and sixty-four hundredths, was it?

A. It was.

Q. Now, a short time after that you were back again and had a talk with Mr. Bennett, were you not?

A. I was.

Q. And you went over his land to some extent?

A. Yes.

Q. Did he have about the same quantity of water in his ditch at that time?

A. I don't know, I presume—I haven't any idea; I didn't pay any attention to the ditch. I don't think Mr. Bennett was irrigating; he was cutting hay.

Q. He showed you his timothy hay, did he?

A. Yes.

Q. And did you find it pretty dry?

A. Why, there was no evidence of dryness down around the point where we were.

Q. What I want to get at is whether you did not find that his timothy grass was burning there for want of water?

A. Mr. Bennett showed me one spot of timothy that he showed me was burning. It was a spot that was never

Testimony of W. C. Muldrow.

cleared of gravel and stone, where he run water over the uncultivated ground.

Q. Was it burning as you saw it there?

A. There was some timothy that was burning; that is, it showed lack of nourishment on account of either lack of water or lack of nourishment in the soil or something.

Q. And he invited you, didn't he, to come up and see his grain also at that time?

A. Why, I cannot—I presume he did, I am not quite sure about it.

Q. Don't you remember that he told you that it was burning also and asked you to come up and see if it was not?

A. Mr. Bennett and I had a considerable amount of conversation just at that time, and I am unable to recall the exact—

Q. Anyway, you didn't go with him, did you?

A. I don't think I did.

Q. Now, at the times you were over there to see Mr. Bennett about his water you and he were having some disputes, I believe, weren't you, about his use of the water?

A. There was no dispute on my part.

Q. Well, in other words, you closed down his head-gate and he would raise it again?

A. Yes.

Q. Now, the water of Spring Coulee or that creek had never been adjudicated, had they?

A. No.

Testimony of W. C. Muldrow.

Q. And Mr. Bennett's right to that water had never been adjudicated, to your knowledge?

A. Not to my knowledge.

Q. And yet you were shutting him down?

A. Yes, I was shutting him down.

Q. Yes?

A. I was closing the headgate to a certain extent.

Q. Who told you, Mr. Muldrow, that you had any right to close down that headgate when the waters of the creek had not been adjudicated?

The COURT: That question does not enter into this case.

Mr. SMITH: All right.

Q. You had just been over Mr. Bennett's land, I believe, just walked over it?

A. Yes, two or three or four times.

Q. Never dug in the ground to see what was in there?

A. No.

Q. Now, the duty of water, Mr. Muldrow, depends entirely, does it not, on the individual tract of land on which it is being used?

A. Not entirely. To a certain extent it does.

Q. Well, to a very large extent?

A. It makes a pretty good percentage, I would imagine.

Q. Up in our county, there, Mr. Muldrow, the land is very patchy, isn't it, and when we speak of it as to its adaptability for irrigation, some places it will take an immense amount of water and in other places right next to it it won't take near so much?

Testimony of W. C. Muldrow.

A. That is true.

Q. And from using water on one tract of land you could hardly tell how much water would be required to use on even the adjoining tract in that country?

A. Why, it would give you a pretty fair idea; it would give you the best idea you could have under the circumstances, except by actually using water on that tract.

Q. Now, the Government project there is a fruit proposition, isn't it, Mr. Muldrow?

A. Fruit is the largest industry, yes.

Q. Well, that is almost exclusive, isn't it?

A. It will be exclusive, probably, some day.

Q. Now, alfalfa and hay always require more water to irrigate it than fruit, doesn't it?

A. That is true, on land of similar character.

Q. Yes, I mean if you put the two on the same tract, for instance?

A. Yes, sir.

Q. What is the extent of the examinations you ever made of this Spring Coulee ditch from the intake at Salmon Creek down to Mr. Bennett's lands?

A. By the intake at Salmon Creek I meant the spill-way where the water is regulated.

Q. There at the Gardiner place?

A. And at the Gardiner place, that is the point at which the water is measured and has always been measured.

Q. Well, the intake of the ditch is up at the Maloney place, up above?

Testimony of W. C. Muldrow.

A. Yes, I have been up there a number of times.

Q. What?

A. I have been there a number of times.

Q. Are you acquainted with the ditch from the intake up on the Maloney place down to the spillway?

A. Yes.

Q. Did you ever go over that with a view of examining the ditch?

A. Not rigidly, no; walked up and down it several times; I know it is shown correct.

Q. Just walking along the bank?

A. Yes.

Q. Now, from the spillway down to Mr. Bennett's place, what has been the extent of your examination of the ditch?

A. I followed its general course only once, its full course, but at that time with a view to studying its character with regard to seepage and making measurements to determine the amount of seepage.

Q. What did you do to discover its least—or the least water in transportation through that ditch?

A. I simply measured the quantity of water that was coming into it and measured each quantity of water that went out of it, and measured the quantity of water remaining in it at intervals.

Q. You made no examination of the soil over which the ditch was running?

A. Yes, I did.

Q. That is, down in the ditch, I mean?

A. I examined the bed of the ditch to a certain ex-

Testimony of W. C. Muldrow.

tent all along, because our object is to determine the amount of seepage and the points where the seepage was occurring, as far as possible.

Q. That was from the spillway down to Mr. Bennett's land?

A. Yes.

Q. And how far was that, did you say?

A. It is approximately two miles. I would not say now because I have not paid any attention to those old notes and do not remember.

The COURT: How far is it from the spillway to the river?

A. Oh, it is about half or three-quarters of a mile.

Mr. SMITH: I think if the Court would care to have it we might be able to give you a little better idea from the diagram that I might prepare as to the way that situation exists.

Mr. CAIN: We have a map here. (Handing same to Mr. Smith).

Mr. SMITH: Probably this is the very thing we want. Have you any objections if I hand this to the Court?

The COURT: I just want to know in a general way how long the ditches were. (Court examines the said map).

Mr. SMITH: I think that is all for the time being, your honor. We will probably wish to ask him another question later on.

Testimony of W. C. Muldrow.

RE-DIRECT EXAMINATION.

By Mr. BURR:

Q. Mr. Muldrow, you testified in regard to the amount of water Mr. Bennett was receiving when you measured; how much a supply of water would that make to Mr. Bennett's ranch, measured in acre feet?

A. Well, that depends on the exact acreage of land to which he was applying it.

Q. Estimated at fifty acres, how much would it make, fifty acres?

A. That would depend also on the length of the irrigation season, those two factors.

Q. What is the irrigating season in that country?

A. About four months.

Q. Figuring the irrigation season at four months and the acreage at fifty, how much would the water that Mr. Bennett was receiving make in acre feet?

Mr. SMITH: I believe, your honer, that we will object to that question. If I remember the testimony it is a false estimate. I do not remember the witness saying anything about fifty acres; I think he said sixty.

Mr. CAIN: He said about fifty; he didn't know.

The COURT: He has a right to lay his foundation and prove it by other witnesses if he desires.

Mr. SMITH: Yes, for that purpose.

Mr. BURR: I intended to examine another witness first and lay the foundation for it.

A. Practically eight acre feet.

Q. Do you regard eight acre feet as an excessive supply of water?

Testimony of W. C. Muldrow.

A. Well, it would be so considered.

Q. Do you consider it so?

A. I do, under ordinary conditions.

The COURT: Does this eight acre feet mean at the land or above the land?

A. At the land.

Mr. BURR: Q. You testified to the amount of water flowing in that ditch; was that at the headgate or this spillway?

A. At this spillway. There is always more water carried through the ditch than is used in the section from the headgate to the spillway, and then they turn back into the creek the amount that they don't want to come down at this point.

RE-CROSS-EXAMINATION.

By Mr. SMITH:

Q. Mr. Muldrow, on the day that you measured this water on Mr. Bennett's place, was he using the water?

A. The water was turned off on his place. Mr. Bennett, I believe, was in town, and no one was apparently using it.

Q. Don't you know that Mr. Bennett was not irrigating at all that day, and that Mr. Heizman was using all the water?

A. Oh, Mr. Heizman was not.

Q. Beg pardon?

A. Mr. Heizman was not using the water. The water was coming on Mr. Bennett's place, whether he was irrigating or not, because it was not going through on Mr. Heizman's place.

Testimony of W. C. Muldrow.

Q. But Mr. Bennett was not home that day?

A. No.

Mr. SMITH: Mark this for identification.

Thereupon said paper was marked Defendant's Exhibit 1 for identification.

Q. Mr. Muldrow, I hand you a newspaper clipping, marked for identification, Defendant's Exhibit No. 1, and I will ask you if that is a newspaper advertisement that you carry in at least one of the newspapers of Okanogan County?

A. It is.

Mr. SMITH: We wish to introduce it later on, or now just as well.

The COURT: What is the advertisement?

Mr. SMITH: Shall I read it, your honor?

The COURT: Yes.

(Mr. Smith reads the newspaper clipping, Defendant's Exhibit No. 1).

Mr. SMITH: We offer it in evidence as Defendant's exhibit 1.

The COURT: It will be received.

Thereupon said paper was admitted in evidence, and marked Defendant's exhibit No. 1, and is made a part hereof.

RE-RE-DIRECT EXAMINATION.

By Mr. BURR:

Q. Can water be as economically used without supervision as with?

A. I would naturally presume not.

Mr. BURR: That will do.

Witness excused.

Testimony of Ferdinand Bonstedt.

FERDINAND BONSTEDT, a witness called and sworn on behalf of the Government, testified as follows:

DIRECT EXAMINATION.

By Mr. BURR:

Q. Will you state your full name, Mr. Bonstedt?

A. Ferdinand Bonstedt.

Q. What is your profession.

A. Civil engineering.

Q. Will you state briefly the experience that you have had in that profession with regard to irrigation?

A. I have been engaged at it for nine years.

Q. Where, Mr. Bonstedt?

A. Nine and a half years—in the arid areas of the United States.

Q. Were you ever officially connected with the United States Reclamation Service?

A. Yes, sir.

Q. Where?

A. Washington, Nevada, Oklahoma.

Q. How long and where in the State of Washington?

A. Since March, 1906.

Q. Where?

A. At Okanogan, Okanogan County.

Q. In what capacity, Mr. Bonstedt?

A. Engineer in charge of construction work and project engineer on the Okanogan Project.

Q. Have you been in charge, and if so, how long, of the operation of the Okanogan Project in the distribution of water for irrigation purposes?

Testimony of Ferdinand Bonstedt.

A. For three years.

Q. Are you so connected at present?

A. No, sir.

Q. When did you cease your connection?

A. About the middle of March, this year.

Q. Are you familiar, Mr. Bonstedt, with the Bennett ranch, the ranch of the defendant, I should say?

A. I visited it quite frequently.

Q. Will you describe the location of that property in regard to the Salmon River, or is that sufficiently covered—I think that is sufficiently covered——

The COURT: Colored in red there on the map, I think that is sufficiently covered.

Mr. BURR: Yes, I think so.

Q. Will you describe the topography of the defendants' property with regard to local conditions?

A. You refer to the irrigable land, I suppose?

Q. The irrigable land, yes, sir.

A. It is a body of land about a mile long and varying from fifty to five hundred feet wide; probably a little wider than that in some points—seven hundred feet.

Q. What is the land overhanging that property?

A. It lies in a valley with quite steep hills on both sides.

Q. Is there in your judgment a natural run-off and seepage from these coulee sides, canyon sides?

A. Yes, sir, I think there is a seepage from those sides.

Q. Is there any question about it?

A. I don't think so.

Testimony of Ferdinand Bonstedt.

Q. Are there springs throughout that coulee?

A. I know of one, a quite large spring—oh, I know of a number, yes, three—four.

Q. Is Mr. Bennett's land with regard to the necessary supply of water from the stream normal, or more or less, in its requirements than the average land of the Okanogan country, in your judgment?

A. In my judgment it requires less water to irrigate that land and I might say any land on the Okanogan Project or country.

Q. In connection with your work in charge of the operation and the distribution of water, have you been an observer of the amount of water needed upon the various lands in the Okanogan Valley?

A. Yes, sir.

Q. What have you done in the way of observation; will you describe a little bit more fully?

A. In doing my work up there I kept records of amounts of water that went on different tracts, various tracts, by means of weirs, measuring devices.

Q. Will you tell the Court briefly the method employed on that project of the measurement of water?

The COURT: I don't care about that.

A. They are measured on the project proper—that is, the lands——

Q. The Court says he does not care about that. Your method is in accordance with the approved scientific knowledge in the measurement of water. Is it, or is it not?

A. On the project, yes.

Testimony of Ferdinand Bonstedt.

Q. And what is the duty of water in the Okanogan country for new lands?

Mr. SMITH: We object to that question, your honor, as too general. It should be confined to the land in controversy.

Mr. BURR: I think in his answer he will bring out that distinction.

The COURT: There are two questions involved in this suit. One is the number of acres irrigated up there, and the other is the amount of water necessary to irrigate it. I think possibly some Okanogan farmers who have been engaged in that business could enlighten the Court on that subject. But you may proceed. (Last question read).

A. Why, the Government has placed it at two and a half acre feet and——

Mr. SMITH: We move to strike that answer as not responsive.

The COURT: I will not consider it.

Q. The answer was not responsive, Mr. Bonstedt, exactly. Will you tell the duty of water on new lands irrespective of what the Government has placed it at, what water is necessary on new lands in that project?

A. It would be necessary to divide those lands into two grades before I could state what in my opinion it requires.

Q. Well, state the two grades and give answer to each.

A. On volcanic ash soil for orchards I would place it at a foot and a half; for forage I would place it at two and a half acre feet.

Testimony of Ferdinand Bonstedt.

Q. For forage crop?

A. Yes. On the sandy land I would say about two acre feet for orchard land and possibly four and a half for forage crop.

Q. Of which character of soil is the land of this defendant?

A. I would class them as a volcanic ash soil.

Q. Now, upon old land what is the necessary amount of water for fruit?

Mr. SMITH: I believe the witness has answered that, your honor.

Mr. BURR: I asked him on new lands. I am now asking him on old.

The COURT: This defendant is not engaged in the fruit business.

Mr. SMITH: No.

Mr. BURR: He alleged in his answer he has an orchard there.

Mr. SMITH: He has a family orchard.

The COURT: I suppose a family orchard is very small, I don't know.

Mr. SMITH: Oh, yes, it is not an acre, or just about an acre.

Mr. BURR: If the Court please, I would like to say at this time, in order to make this relevant, that I would like to secure a decree as to the duty of water on that ranch for two different crops. The land will undoubtedly after some time come into apples. In fact, the defendant is intending to sell it for that purpose as soon as may be, and I would like to get a decree as to the

Testimony of Ferdinand Bonstedt.

duty of water for alfalfa and forage crops, and the duty of the water when it shall come into fruits; and therefore that question I would like to make relevant in that connection.

The COURT: I will not enter any such question. I will determine his rights at the present time.

Mr. BURR: I would like to take an exception.

Q. What is the duty of water on old lands for forage crops in the Okanogan country?

A. In my opinion it is about two and a half acre feet.

Q. On volcanic ash soils or on sandy soils or both?

The COURT: He answered that question. He said four and a half on sandy soil.

Mr. BURR: I thought he was talking about new lands at that time. My question was as to new lands in that connection.

A. I would state that I don't know of very little old lands that are sandy; practically all the old lands are what is known as volcanic ash soil.

Q. What is the custom of the country in regard to the duty of water?

Mr. SMITH: We object to that, your honor, as being immaterial.

The COURT: He may answer, if there is any custom.

A. I don't know.

The COURT: I judge from the testimony here that there is not.

Mr. SMITH: That is what the witness said.

The COURT: You are trying to base it on Government contract.

Testimony of Ferdinand Bonstedt.

Mr. BURR: If your honor please, we are prepared to show that all of the old and new lands of the project, those having vested water rights before the Government, and those having contracts from the Government are——

The COURT: Do you think you can establish custom by contract? Isn't the custom the very opposite of contract?

Mr. BURR: It does not seem to me so.

The COURT: That is my understanding of the law, that custom is never based on contract. The very word shows the contrary.

Mr. BURR: Q. Outside of the Government contract, Mr. Bonstedt, are there other contracts in the vicinity of the defendants' property——

Mr. SMITH: That is objected to as immaterial.

A. (Continuing)—upon the duty of water?

The COURT: You may answer.

A. Yes, I know of one.

Q. What is the duty under that contract, that series of contracts?

A. That calls for three-quarters of an inch per acre.

The COURT: What would that amount to in cubic feet, three-quarters of an inch, under pressure, you mean?

A. Yes, sir.

The COURT: Under a six or four inch head?

A. It does not state; it simply says three-quarters inch per acre; I don't know what the pressure is.

Mr. BURR: Q. How deep is the water cable under the defendants' irrigated land, if you know?

Testimony of Ferdinand Bonstedt.

A. I don't know.

Q. Is there a well at the lower end of the property?

A. Adjoining the defendants' property, yes.

Q. At the lower end?

A. Yes, sir.

Q. How deep is the water from the surface in that well?

A. It is about seven and a half feet.

Q. From the surface of the ground?

A. From the surface of the ground.

The COURT: Submerged?

A. Well, I measured it about some time in January, and it was seven and a half feet, and I measured it on May 10th and it measured about eight feet.

Q. Is that water cable closer than the ordinary lands of the Okanogan country that are under irrigation?

A. I don't know where that water plane is.

Mr. SMITH: I object to that, your honor; that is a pretty hard question.

Q. Will you describe the lands of the defendant with regard to conditions of water cable as shown by the marsh existing on his land?

A. The marsh—I should say the marsh was about fifteen feet below the highest point of his land, and that about a third of his area, that the lands lie four feet above the marsh.

Q. Does the existence of that marsh indicate anything with regard to the amount of water necessary on the defendants' land? If so, what?

A. In my opinion it would require less water to irri-

Testimony of Ferdinand Bonstedt.

gate that land with that marsh—the water plane being about four feet below the surface of the land.

Q. Is that marsh increasing in size or diminishing or stationary?

A. I don't know definitely, but I think that it is increasing a little.

Q. Does water stand there summer and winter

A. Well, for several months this—in the past year it was dry.

Q. Do you know whether that is normal during that season of the year

A. I have known it to be dry several other seasons, that is, dry enough so that you could traverse it without getting your feet wet.

Q. Will you state the condition as to cultivation on the defendants' property, whether or not it is in proper shape for economical irrigation?

A. In my opinion it is not in shape for high duty of water.

Q. Is it in average shape for the Okanogan country?

A. Yes, sir.

Q. The old time water rights?

A. Yes, sir.

Q. Or both?

A. It is in average shape for the method used in that country for irrigation.

Q. Is it as good as Mr. Carpenter's place?

A. Which Carpenter?

Q. I will withdraw that question with the Court's permission. Mr. Bonstedt, upon what are the Government water rights based in the Okanogan country?

Testimony of Ferdinand Bonstedt.

The COURT: Cover the most possible ground with the least possible water, are they not?

The WITNESS: Beg pardon?

The COURT: To cover the most possible ground with the least possible water?

The WITNESS: No. They are based upon a normal flow of the Salmon River, being thirty thousand acre feet.

The COURT: And you desire to cover that many acres with it?

A. No, a third of it, ten thousand, making the duty three acre feet of the diversion point.

Mr. BURR: The appropriation of the United States, and the compliance with the law, as I understand it, is admitted by the answer.

The COURT: Denied on information and belief, I believe. I don't know whether that amounts to a denial or not. I believe there is an averment afterwards as to information and belief. There is a denial on information and belief, so I think one destroys the other.

Mr. SMITH: We have admitted that they have built works there and that sort of thing, but our intention was that what they have taken in the way of appropriation we do not know.

Mr. BURR: I think they admitted paragraph four of the complaint, down to the point of the placing to beneficial use.

Mr. SMITH: Well, your honor, we do not wish to be technical here. We understand they have built their works and appropriated water, and probably all of the

Testimony of Ferdinand Bonstedt.

unappropriated water. That is too nice a point to litigate here. We simply want to litigate the question of what water we are entitled to use.

The COURT: With that understanding it is not necessary to prove it.

Mr. BURR: We are prepared to offer copies of the documents, if they are desired.

The COURT: I say in view of counsel's admission it is not necessary to prove it.

Mr. BURR: Q. Mr. Bonstedt, what was the condition of the run-off in the year 1911 for the Okanogan Project?

A. The smallest that it has—since records have been kept.

Q. Did the Government have enough to water?

A. No.

Q. Are you familiar with the kind of irrigated land that the defendant has?

A. I made a survey of it.

Q. Have the map of the irrigated land here?

A. Yes, sir.

Mr. BURR: I would like to introduce the map of the property.

Mr. SMITH: I object to it, your honor, at this time; no proper foundation.

Mr. BURR: Q. Was that survey, Mr. Bonstedt, made by one of the Government engineers?

A. It was made by myself and another party, who acted as rodman.

Mr. BURR: We now would like to offer it.

Testimony of Ferdinand Bonstedt.

Mr. SMITH: We renew the objection, your honor.

The COURT: You prepared the map, did you?

The WITNESS: Yes, sir.

The COURT: That is in accordance with your survey?

A. Yes, sir.

The COURT: Objection overruled.

Thereupon said paper was admitted in evidence and marked Government's Exhibit No. 2.

Q. Where are the boundaries of Mr. Bennett's property—that is admitted in your pleadings?

A. Shown here by the solid black line.

Q. What is the area of the land to the west that is shown there as being under cultivation?

The COURT: Probably you had better explain what these lines on the map mean first.

A. The green line shows the outline of the area to which water has been applied.

The COURT: That is the green line here.

A. The green line.

The COURT: And this line here?

A. Yes, sir. This shows the outline of the swamp.

The COURT: Do you exclude the swamp in that computation?

A. Excluded the swamp.

The COURT: What is the area without the swamp?

A. 14.8 acres.

The COURT: Excluding the swamp, I say, what is the area?

A. 50.9 acres, and toward the Reed Creek 3.3 acres.

Testimony of Ferdinand Bonstedt.

The COURT: Are both of these involved here?

Mr. BURR: Not the Reed Creek, no, sir.

The COURT: Practically fifty-one acres, then?

The WITNESS: Yes, sir.

Q. The land shown upon that plat lying to the west of the land, marked 14.8 acres irrigated, what is the nature of that land?

A. Below the ditch you refer to?

Q. Right here (indicating).

A. That is very rocky.

Q. Was that irrigated at the time when you made that survey which resulted in that map?

A. I don't believe it was.

Q. What were the indications as to cultivation or the lack of it, and irrigation, or the lack of it?

A. It showed no indication that it had been irrigated or hay had been cut from it.

Q. Just what was the condition as to soil?

A. It was parched, burned. This survey was made in October, and the foliage was dead.

Q. No cultivated crop showing?

A. No.

Q. It is not arable land, you say?

A. I say it is not plow land; I don't think it could be plowed.

Q. Why not?

A. It is covered with large boulders.

Q. When did you make that survey?

A. Made in October, 1908.

Q. What is the precipitation in Okanogan County?

Testimony of Ferdinand Bonstedt.

A. At Conconully the normal is about seventeen inches.

Q. How much?

A. Seventeen inches.

Q. How much at Omak, on the project?

A. I think it is twelve—yes, we will call it twelve.

Q. What time in the year does that precipitation largely come?

A. During the winter months.

Q. Is there rainfall during May as a rule?

A. Yes; have showers.

Q. Is there rain during September and October as a rule?

A. Yes, generally.

Q. Do you need water during the month of September in the Okanogan country in order to raise alfalfa?

A. In my opinion I do not believe you do.

Q. Do you need it during April?

A. I think not.

Q. Are the farmers actually raising three crops of alfalfa in the Okanogan country without receiving water in April and September?

A. Well, they all apply it during those months.

Q. What is that?

A. They generally apply water during those months. I would like to modify that, during the first—during the last half of April and the first half of September.

Q. Are they raising alfalfa in some portions of the new lands on the project without receiving water during those months, April and September?

Testimony of Ferdinand Bonstedt.

A. Has been some raised.

Q. Well, do they need it during April and September for three crops of alfalfa?

A. My opinion is that they do not.

Q. The old lands on the project, the old alfalfa lands, will require less rather than more water than new lands will, will they not?

A. Yes.

Q. Do you deliver any water whatsoever to the new lands of the project during April and September?

A. We did last year.

Q. How long?

A. They watered during April, the last half of April, last year.

Q. Was water delivered this year during April?

A. No.

Q. When did water delivery this year begin?

A. I don't believe that they began—yes, they delivered, I think, three days, so Mr. Castile told me.

Q. Well, we will prove that by Mr. Castile. How late does the snow, as a rule, lie on the lands of the project?

The COURT: If they only have eleven inches of rainfall it does not lie all summer, that is certain.

Q. They have a pretty late snow lying on the ground?

A. March first.

Q. Will the lands of the defendants have snow longer or shorter—I mean later, or not, than the other lands on that project?

Testimony of Ferdinand Bonstedt.

A. Have it later.

Q. Is the precipitation on the lands of the defendant in the Spring Coulee Valley greater or less than the average country, the average on the project?

A. I think it is a little more normally.

Q. Why?

A. It is a little higher, closer to Conconully. It indicated that as we approach the mountain the precipitation seems to increase.

Q. Is there more timber up in that district than there is on the average lands on the project, or less?

A. There is more.

Q. What does that show in regard to irrigation and length of seasons?

A. I think that has a tendency to delay the melting of the snow.

Mr. Burr: Take the witness.

CROSS-EXAMINATION.

By Mr. SMITH:

Q. Do you know why water delivery has not commenced up there this year so far?

A. On account of the rain.

Q. Yes, we have had the heaviest rains this spring that have been there in years, haven't we, more of it?

A. I believe that they had years like it before.

Q. In your time and mine there?

A. In my time.

Q. Well, this is a very high year, though, isn't it?

A. I think it is considerably above normal.

Q. And last year was a very, very low year, wasn't it?

Testimony of Ferdinand Bonstedt.

A. Precipitation?

Q. Well, water was scarce last year?

A. Precipitation was—there was only one year in the eleven years that the precipitation has been greater——

Q. Than last year?

A. Than last year.

Q. It wasn't only the Government that was short of water; we were all short, weren't we, last year, generally speaking?

A. It goes to show that the precipitation—other things than precipitation affect the turn-off.

Q. I am just trying to get at the fact of it. Everybody was short of water, generally speaking, last year?

A. Project lands were, yes, sir.

Q. And others, so far as you know—so far as your knowledge goes, what is the fact, Mr. Bonstedt?

A. Oh, all the old ranchers, yes.

Q. And the new ones, too? I am trying to get at the fact, Mr. Bonstedt, whether or not last year was a very dry year every place up there, not only down on the project.

A. That is true.

Q. Now, you surveyed these lands, I believe; when did you make that survey?

A. October, 1908.

Q. It was a Government survey, was it; that is, made under the direction of the Government?

A. Yes.

Testimony of Ferdinand Bonstedt.

Q. How many surveys have the Government made of Mr. Bennett's lands?

A. Three.

Q. Have you the results of the other two?

A. I have no map.

Q. Well, we would be willing to dispense with the map if we could get the results.

A. I think I know the results, yes.

Q. Well, now, there are not two of them alike, are they? Did not get the same acres either time?

A. Yes, two of them agreed approximately.

Q. One survey made it about twenty-five acres, didn't it?

A. So I understand.

Q. Well, you have got the notes on that, haven't you?

A. Not here.

Q. Who made that survey for the Government?

A. I think it was made by Mr. O'Keefe and a party by the name of Maloney.

Q. They were reclamation engineers?

A. They were employed by the reclamation service.

Q. Now, the next survey that was made increased the area quite a bit; how much did they make it, the second survey?

A. Fifty acres.

Q. That much?

A. Yes, sir.

Q. Have you got the notes on the second survey here?

Testimony of Ferdinand Bonstedt.

A. No, sir.

Q. Well, what was the necessity—why was the third made?

A. To convince myself of what that area was.

Q. I don't want you to injure your irrigation project up there, but I understood you to say that you had ten thousand acres under the project; is that correct?

A. Yes, sir.

Q. I have been under the impression that it was eight; eight thousand acres is all you claim you can irrigate; am I correct or not?

A. As new land. I am counting old lands as part of the project.

Q. Old water?

A. Old water rights, yes, sir.

Q. I understood you to say that Mr. Bennett's place was not in very good shape for cultivation; was that right? Did I understand you correctly?

A. I stated that it was in as good shape as any lands up there.

Q. Oh, yes; now, Mr. Bonstedt, how long have you lived in the vicinity of Mr. Bennett's place?

A. Six years.

Q. Now, you have a ranch in that coulee some place, haven't you?

A. No, I have not.

Q. Mr. Bennett is one of the very best farmers in that country, isn't he?

A. He is considered a very good farmer.

Q. Now, isn't it a fact that he and Mr. Maloney, his

Testimony of Ferdinand Bonstedt.

neighbor above him, where this Spring Coulee ditch is taken out, are regarded as the best two farmers in all Spring Coulee; raise bigger crops?

A. I have heard Mr. Maloney's mentioned, but I don't know as I have——

Q. Well, haven't you mentioned it yourself, Mr. Bonstedt?

A. I might have.

Q. You have never seen any indications on Mr. Bennett's crops of too much water, have you?

A. I never saw them suffer.

Q. Either with too much or not enough; you regard him a good farmer, don't you?

A. I cannot say that I ever saw them suffer.

Q. You are not meeting me quite square as I would like you to, Mr. Bonstedt; I want to get at it both ways. You say you have not seen them suffer for water. I want to find whether you saw anything that would indicate that they were suffering from too much water or not enough, either one?

A. I would state that you probably could point out points there that too much water alkali'd that soil.

Q. I know that is the supposition, but I am asking you whether you saw anything that you can recall now that indicated too much water?

A. Those alkali spots, in my opinion, might be caused through a surplus of water to have been applied.

Q. Alkali is a very general product all through our country up there, alkali spots all through the ground?

A. Principally adjoining the hills, yes.

Testimony of Ferdinand Bonstedt.

Q. You never dug into Mr. Bennett's ground to find out what is under there, did you?

A. No, sir.

Q. Never made any examination of the sub-surface?

A. No, sir.

Q. Or sub-soil?

A. No, sir.

Q. And the Government never made any, to your knowledge?

A. Not to my knowledge.

Q. I understood you to say you are not with the Government now. You just have a lay-off, haven't you?

A. I don't know what my status is exactly. I asked for a year's lay-off or furlough, and it has not been granted yet.

Q. Are you on half pay or something; aren't you drawing pay yet from the Government?

A. No, sir.

Q. Now, this well down below Mr. Bennett's place, that is on the Heizman place, isn't it?

A. Yes, sir.

Q. And that well is right close to Mr. Bennett's south line, isn't it?

A. Within four or five hundred feet.

Q. Within four or five hundred feet. Now, how deep is that well?

A. It is about eighth feet and a half.

Q. No, I mean to the bottom of the well.

A. Oh, I never measured the bottom.

Q. Did you ever notice the kind of soil or whatever -

Testimony of Ferdinand Bonstedt.

it is that was taken out of the well, while it was being dug?

A. Yes.

Q. Did you ever see any snail shells and mussel shells, or do you know that that is what they encountered down there?

A. I did not examine the soil as closely as that.

Q. Now, you measured it in June of what year and found seven and a half feet?

A. I don't remember the exact date. It might have been December, 1910, or the first of the year.

Q. Now, then, by May the water had sunk half a foot in it?

A. Yes, sir.

Q. And irrigation had been going on on the Bennett place up to that time, up to May, hadn't it?

A. No.

Q. This year, was it May of this year?

A. May of this year?

Q. In 1910, was it, that you found it was seven and a half feet down to the water, or 1911?

A. 1911. Either December, 1911, or January, 1912.

Q. Now, I understand. But in May of this year, after such irrigation as has been going on in the coulee there by Mr. Bennett and everybody else, and after all of these excessively heavy rains that we have been having, the water has gone down a half a foot in the well; is that correct?

A. This measurement I made, yes, from the time I measured it.

Testimony of Ferdinand Bonstedt.

Q. What was that well dug for?

A. I don't know.

Q. Haven't you heard what it was dug for?

A. No, I have never heard. I understood that Mr. Heizman was going to use it for a pumping proposition.

Q. Mr. Heizman is one of the old water users there in the coulee, isn't he?

A. Yes.

Q. He raises alfalfa?

A. Yes.

Q. And I believe he signed up for three acre feet, did he, with the Government?

A. Yes, sir.

Q. Now, Mr. Heizman since signing up with the Government has bought some fourteen acres of water from the Government to irrigate this same alfalfa that he was irrigating before, hasn't he?

A. Yes.

Q. And he has dug this well to pump out of besides, hasn't he?

A. I don't know whether he is going to pump from it.

Q. Well, that was your understanding?

A. Yes.

Q. You spoke of some project or ditch that was giving three-quarters of an inch to the acre; what project is that and where is it?

A. I am taking that from the records of the sale from the Munson ranch to the Cook ranch.

Q. The Munson ranch is just below the Heizman ranch in the Spring Coulee?

Testimony of Ferdinand Bonstedt.

A. Yes, sir.

Q. Three acre feet of water under our project up there is equivalent to how much miner's measure under a six inch pressure?

A. How is that?

The COURT: Fix the period.

Mr. SMITH: I said under our project up there.

A. Basing a miner's inch, or one second foot, fifty miner's inches, it would be practically a half inch, miner's inch.

Q. Are you using six or four pressure—fifty miner's inches under what pressure?

The COURT: Four?

A. I would have to look that up. I don't know whether the fifty miner's inches—what pressure that would be.

Q. Well, we will concede that to be four.

The COURT: My understanding is that it is four.

Mr. SMITH: Take it under six inch pressure—and we will concede that for general purposes to be forty?

A. Forty-one.

Q. Three acre feet under the Okanogan project is equivalent to how many miner's inches under a six inch pressure?

A. I think it is a half miner's inch, approximately, you know.

Q. Yes, approximately one-half of one miner's inch?

A. Yes.

Q. A little less, isn't it?

A. No, it is a little more.

Testimony of Ferdinand Bonstedt.

Q. A little more. Now, when you have given your estimate of the duty of water, you have used its highest duty, have you not, Mr. Bonstedt?

A. That is economical use, yes.

Q. And it contemplated use by an expert irrigator, too, doesn't it?

A. A party familiar with irrigating methods.

Q. Do you know Mr. Bert Jones, who lives up Spring Coulee a piece above Mr. Bennett?

A. I do.

Q. Did he ever work for you or under you?

A. He worked for this reclamation service.

Q. Have you talked with him any about the duty of water in that country?

A. I don't think so.

Q. I will ask you if you had a conversation with him in 1906 while you were surveying over at Mr. Hendrick's about the duty of water in the Okanogan country?

A. In 1906?

Q. Yes.

A. I don't recollect it.

Q. And I will ask you if in that conversation Mr. Jones asked you how much water it would require to irrigate in our country up there, and if you did not tell him in substance this language: "It takes seven acre feet in Nevada, and by God, I don't see why it won't take that much here, the soil being rocky and gravelly"?

A. Never remember that conversation.

Testimony of Ferdinand Bonstedt.

Q. That would not be exactly word for word, but as nearly as I can get it; anything similar to that?

A. I don't remember it.

Q. I ask you again if you had a conversation with him about two years ago at the Government's camp in regard to Mr. Bennett as a farmer, in which you said that you regarded Mr. Bennett and Mr. Maloney the best two farmers in Spring Coulee, or words to that effect?

A. I have—I might have said it; I don't remember it.

Q. Do you know a gentleman up there by the name of Victor Ravenal?

A. I do.

Q. Have you talked with him, about the duty of water?

A. I have.

Q. Now, this Okanogan project is a fruit proposition, isn't it?

A. It will be eventually.

Q. Well, that is what it is now?

A. Yes.

Q. And it takes a great deal more water for alfalfa and forage than it does for fruit?

A. Yes.

Q. As much again?

A. In some instances it does.

Q. Do you remember talking to Mr. Ravenal up at the Government headquarters about three years ago about the duty of water in the project?

Testimony of Ferdinand Bonstedt.

A. I have had a number of conversations with Mr. Ravenal.

Q. He is under the project now, isn't he?

A. Yes, sir.

Q. And he was raising some alfalfa at that time and is yet, I believe?

A. Yes.

Q. He made a complaint to you about not having enough water, didn't he; has several times?

A. I think so.

Q. And I will ask you if you did not tell him on various occasions that he would have to cut out his alfalfa, or words to that effect, that this was a fruit proposition?

A. I did, if the amount or quantity of water we were deliverinig was not sufficient.

Q. I am asking now if you were giving him what you agreed to give him, and with that understanding, and I want to ask you if you did not tell him he would have to cut out his alfalfa, that this was a fruit proposition, and not alfalfa?

A. I think I said that, but on a qualification that if he was not able to raise alfalfa at the quantity we were giving he would probably have to replace it and put it all in fruit.

Q. Now, Mr. Ravenal has one of the best ranches under the project, hasn't he; that is, so far as the soil being adapted for irrigation?

A. Yes.

Q. The soil is deep and good?

Testimony of Ferdinand Bonstedt.

A. A large percentage of it is.

Q. Now, you know Dr. Poge up there?

A. Yes.

Q. Dr. Poge of Poge Flat or Poge Prairie?

A. Yes.

(Thereupon an adjournment was taken until 2:00 o'clock p. m. of this day, at which time the trial was resumed, all parties present, the witness Bonstedt resuming the stand for further cross-examination).

Mr. SMITH: Q. Have you had some conversation with Dr. Poge or Senator Poge in regard to the duty of water on this project?

A. I had many conversations with Dr. Poge.

Q. Have you told him on one or more occasions that three acre feet was insufficient to irrigate alfalfa on his place?

A. I don't think so.

Q. Or under the project?

A. I don't think so.

Q. Not at any time or place?

A. Not to my knowledge.

Q. This project is built on Poge Prairie, a good part of it?

A. Called Poge Prairie.

Q. After Senator Poge?

A. Yes.

Q. In procuring this map, Government Exhibit 2, have you eliminated what you have referred to as the rocky land on Mr. Bennett's place?

A. Yes, sir.

Testimony of Ferdinand Bonstedt.

Q. That is not within your calculations?

A. Not within my calculations.

Q. In making that survey what method of surveying did you use?

A. We used a plane table.

Q. That is what is known as the Stedier system?

A. Stedier system.

Q. And were calculations made.

A. You would read by means of an Alidade, an instrument called an Alidade, that intercepts a certain place on the rod, which tells you the distance, reads the distance of the sight.

Q. Now, the Stedier system is not quite so accurate as actual chaining and calculations by latitude and departure, is it?

A. Not quite so accurate.

Mr. SMITH: That is all.

RE-DIRECT EXAMINATION.

By Mr. BURR:

Q. Mr. Bonstedt, you testified that the rocky land was not calculated on the map which has been introduced. You mean that it was not in the calculation of irrigated land, or not there at all?

A. It is not included in the area I gave as irrigable land.

Q. Do those figures in the extreme westerly part of the map indicate that rocky land, or do they not?

A. They indicate the rocky land.

Q. And the respective three figures that are given represent what?

Testimony of Ferdinand Bonstedt.

A. The areas of those respective pieces.

Q. The portion in the extreme southwesterly legal subdivision of the map, is that land claimed by Mr. Bennett, or what is the status of that land?

The COURT: That in green is the irrigable land, I understand?

The WITNESS: This 2.3 acres shown outside of Mr. Bennett's holdings.

Mr. BURR: What is the title of that land there?

A. I think that is still public land.

Q. How about this area in here at the extreme southerly portion of the map?

A. That is still—I think, that is still public land.

Q. Mr. Bennett does not, so far as you know, claim that?

The COURT: He does not claim anything outside of four subdivisions?

Mr. BURR: That is correct, yes.

Q. Now, you testified with regard to Mr. Bennett's place as to whether or not it was average land; irrespective of that question, is it in good condition for cultivation?

A. Not in first-class condition, no, sir; portions of it.

Q. Is it in condition so that it can be economically irrigated.

A. Portions of it are not.

Q. How much of it is not, would you say?

A. I would say all of it below the swamp, which would be approximately an area twenty or twenty-five acres.

Testimony of Ferdinand Bonstedt.

Q. Mr. Bennett's reputation as an irrigator and farmer has been put into evidence. Is his reputation one of enonomy, an economical farmer in the use of water, or not?

A. It is not.

Q. He is known as a man who uses an excessive amount of water generally throughout the valley?

A. Yes, sir.

Q. You merely mean, then, that he has a reputation of getting a good crop?

A. Yes, sir.

Q. Will you describe the conditions very briefly in regard to the run-off condition as to whether last year was abnormal particularly or not?

A. The run-off was particularly abnormal.

Q. And is the normal run-off such as to, in your judgment, give the Okanogan project more water than is expected to be used?

The COURT: I don't understand that the defendant questions the right of the Government to maintain the action. They only insist upon a certain amount of water there.

Mr. BURR: What I want is to lay the foundation in the testimony to the effect that we are damaged in the event of his using an excessive amount.

The COURT: I understand the defendant does not assert a right to use any more than he is entitled to, and he does not restrain you from using the balance.

Mr. BURR: All right, then.

Q. Have you observed the material that was taken

Testimony of Ferdinand Bonstedt.

out of the well near the lower end of Mr. Bennett's place just across the farm on the Heizman land, have you observed what was taken out of the soil?

A. I observed the soil, yes, sir.

Q. What is the character of that soil that was taken out of that well?

A. It all appeared to be good soil, the full depth of the well.

Q. Any coarse rock?

A. None whatever.

Q. When did Mr. Heizman sign that water right application that was referred to in the evidence this morning, approximately?

A. I cannot tell the date.

Q. Approximately when?

A. Some time last fall.

Q. The fourteen acres of additional water that was referred to was to irrigate what land?

A. It was to irrigate some old lands.

Q. Did he have a water right to it or not?

A. No, he had no water right to it.

Q. This was not then to supplement the water right, or the duty of the water which was conceded in the contract; was it or was it not?

A. Oh, no.

Mr. HINDMAN: I think that is immaterial, your honor.

The COURT: It was brought out on cross-examination, and I am rather inclined to think that it is.

Testimony of Ferdinand Bonstedt.

Q. Was that merely, then, to purchase water for land to which he had not any water right before?

A. Yes, sir.

Q. Has Mr. Heizman been receiving good crops under the duty of water conceded by contract of the Government?

A. He is getting very good returns from his land; I don't know what they are.

Q. He has the reputation as a successful farmer, or otherwise?

A. A successful farmer.

Q. Where is his land with reference to Mr. Bennett's?

A. Immediately south; abuts it on the south.

Q. Has he recently signed for additional water and a similar water duty right with the Government?

Mr. HINDMAN: I think it is immaterial what he signed for.

The COURT: I think it is immaterial, but it was brought out on cross-examination.

A. Yes.

Q. The question was asked you whether or not the duty of the water calculated by the Government for the Okonogan Project was not an exceedingly high duty of water, a small supply; does that have reference to the amount which is necessary for general farming?

A. Read the question.

(Last question read).

A. In my opinion I don't think the duty is excessively high compared with the California country.

Testimony of Calvin Castile.

Q. Is it high in comparison with the duty of water in other parts of the state, Mr. Bonstedt, the same season?

A. No.

Q. Is the duty of water, then, as was calculated conservative merely regarding efficiency or otherwise?

A. I think it is a conservative estimate.

Q. Is it your opinion that the defendant can irrigate his land in forage crops for with two and a half acre feet delivered at the land?

A. Yes, sir.

RE-CROSS-EXAMINATION.

By Mr. SMITH:

Q. This fourteen acres of water that Mr. Heizman bought some time ago was for land that he had under irrigation at the time the Government launched this project up there, isn't it?

A. Yes, sir.

Witness excused.

CALVIN CASTILE, a witness called and sworn on behalf of the Government, testified as follows:

DIRECT EXAMINATION.

By Mr. BURR:

Q. Your full name, Mr. Castile?

A. Calvin Castile.

Q. Your business?

A. Irrigation engineering.

Q. How long have you been in it?

A. Since 1903; June, 1903.

Testimony of Calvin Castile.

Q. How long have you been in the State of Washington?

A. All of that time in the State of Washington, except one winter that I spent in Arizona.

Q. Where in the State of Washington?

A. Principally in the Yakima Valley; for a short while in Okanogan.

Q. What part of the Yakima Valley?

A. On the Sunnyside project.

Q. In what capacity there?

A. First as engineer, then as kind of water master in looking after the measurements of water and keeping check on the patrolmen as to deliveries.

Q. What is your present position?

A. Graduate engineer on the Okanogan project.

Q. When did you first see the Okanogan country?

A. In 1903, I think, my first summer was spent on the Okanogan project making investigations.

Mr. BURR: Your honor, at this time I would like to offer testimony in regard to the duty of water in another section of the State of Washington, which we will prove required more rather than less amount of water.

Mr. SMITH: We resist the offer.

The COURT: I have no discretion about excluding testimony in cases of this kind, but as I have stated, if you are going to offer testimony as to all the arid land in this state and attempt to make a comparison we will never get through, and neither this court nor any other court will gain any light from it whatever; but you may offer the testimony if you desire.

Testimony of Calvin Castile.

Mr. BURR: I will refer to two questions very briefly on that, your honor.

Q. What is the duty of water on the Sunnyside unit of the Yakima project, in Yakima County, Washington, and is that duty successful?

A. The duty is three feet.

Q. Measured where?

A. Measured at the land, and is successful.

Q. Is it successful in raising alfalfa?

Mr. SMITH: May we make a general objection to the relevancy and competency of this?

The COURT: Yes.

Mr. SMITH: And will it be understood that it goes to all of this?

The COURT: Yes.

A. It is successful for the first year. I will say that the first year that the land is being seeded they are given more water, but after that the three acre feet is sufficient.

Q. Is the climate and the precipitation, rainfall, length of season such as to make a larger supply necessary, or a smaller supply as contrasted with the Okanogan project?

A. Read the question.

(Last question read).

A. It would require a larger amount of water on the Sunnyside than it will on the Okanogan.

Q. Sure of that?

A. I fell pretty positive.

Testimony of Calvin Castile.

Q. Now, Mr. Castile, in regard to the defendant's land, in what shape is it for economic irrigation?

A. I consider it in very poor shape.

Q. Will you describe it briefly to the Court.

A. It is alfalfa land, seeded to alfalfa, is checked. The method of flooding and the checks are run so that he runs his water down the steepest slopes, and the slopes are so steep that it must require considerable water under a long length of run to irrigate the land. The checks are also, some of them, of excessive lengths, some of them as much as a thousand or fourteen feet, although I believe this spring there has been some change made on them. On the parts below the swamp where the wild hay grows or the wild grass, it is very rough. The water escapes some of the high points there, I would say, a depth of a foot or a foot and a half in places, in the low parts. I suppose in the neighborhood of twenty acres are in that condition.

Q. How about the question of the waste water that escapes in that connection?

A. Why, I would say that it wasted in the neighborhood of a third of his water.

Q. Compared with the other lands both old and new of the project, would you say that the defendant's land was in average state of culture for irrigation or not?

A. Not as compared to the new land.

Q. How about the old?

A. Well, I believe in regard to those it classes with the worst of them.

Testimony of Calvin Castile.

Mr. SMITH: Classes up to——

A. Classes up with the worst.

Q. There is considerable variation, is there?

A. Yes, sir.

Q. It was put in the testimony this morning that the depth of the water table surface in the Heizman well was eight feet below the surface, if I recall correctly, or maybe ten. Tell the Court if you know when the Spring Coulee canal was first receiving water in the season?

A. I believe the water was turned into Spring Coulee down as far as Mr. Bennett's ranch anyway on the 7th. I was over there on the 6th and there was no water running in the Spring Coulee at that time, and Mr. Bennett told me that he was going to take water on the next afternoon, the 7th day of May.

Q. The variation might then be accounted in that manner that was referred to in the testimony?

A. Yes.

CROSS-EXAMINATION.

By Mr. SMITH:

Q. Mr. Castile, this spring there has been a great many rains up there, haven't there?

A. Yes, we have had several rains.

Q. It was very rainy for some two or three weeks past?

A. Well, off and on showers up to this time.

Q. And the water has been very high, hasn't it, in the mountain streams?

A. Why, I believe not. We had high water, but not excessive high water.

Testimony of Calvin Castile.

Q. Well, it has been high water season, hasn't it?

A. Yes.

Q. And notwithstanding this, this well was not as full as it was last year, is that correct?

A. I did not see that well last year.

Q. Oh, I beg your pardon. Do you know whether any current of water has ever been found in that well of water that has been the accumulation from last year when they quit digging?

A. I have not.

Q. Have you ever made any investigation of Mr. Bennett's land, that is, the soil?

A. No, I have never dug in it or anything of that kind.

Q. Now, Mr. Castile, will you just tell us, please, how you can tell the duty of water on a particular piece of ground unless you know what is under the ground, the sub-soil?

A. I was basing my opinion on the fact that that well had water in it, was near the surface, and again the fact that there is a swamp there on Mr. Bennett's land.

Q. Now, that is your opinion, isn't it, that that swamp has been there from time immemorial?

A. Yes, I have heard that.

Q. Now, the depth of the soil and the sub-soil have nearly all to do with the duty of the water for irrigation, doesn't it?

A. The length of the season, of course, and the amount of precipitation to a certain extent.

Testimony of Calvin Castile.

Q. But the nature and character of the soil——

A. That has something to do with it, yes.

Q. That has a lot to do with it, hasn't it?

The COURT: I think these are matters of common knowledge.

Mr. SMITH: I think so, too.

Q. Now, Mr. Castile, one other question, please. Gravelly soil or gravelly sub-soil requires more water than volcanic ash and clay, doesn't it?

A. It does unless you have the ground prepared so that you can rush the water over it.

Q. And you have to rush the water over it anyhow, don't you?

A. To get it wet, I presume, yes.

Q. Just simply like dropping through a sieve, is that right?

A. Yes, or down into the ground.

Q. Let me direct your attention to Government's Exhibit No. 2 and ask you to state if the Government has not a couple of weirs in one of those ditches shown on that exhibit?

A. There is a couple of weirs there, but I don't know who put them in.

Q. Would you indicate, please, on that exhibit about where those weirs are located?

A. There is one right here at the division.

Q. We understand it, but some one reading the record will never know what you mean by "right here."

A. There is one near the north end of Mr. Bennett's place.

Testimony of Calvin Castile.

Q. Make the letter "A" at the up weir and the letter "B" at the lower one.

(Witness does as requested).

Q. What were those weirs put in for?

A. I don't know.

Q. Have you ever made any use of them?

A. I have not.

Q. Since you have been project engineer?

A. I have not.

Q. Have you measured any water over them or made any tests from them?

A. I have not.

Q. You or anybody under you?

A. No, not to my knowledge.

Q. What is the distance from the upper to the lower weir?

A. Approximately a mile.

Q. You have no idea, then, as to the loss in transportation of water between those two weirs?

A. I have not.

RE-DIRECT EXAMINATION.

By Mr. BURR:

Q. Mr. Castile, did you ever hear of a marsh growing in a gravelly soil where there was a sub-soil that run off readily?

A. I have not.

Q. Is that an indication that the sub-soil is clay in that place?

Mr. SMITH: The counsel if awfully leading.

Testimony of B. E. Hendrick.

The COURT: Experience has taught me that a sieve will not hold water. You may pursue that course, however, gentlemen.

Q. For the purpose of having it on the records, will you give the water equivalents between miner's inches and a second foot briefly; I don't think that is on the record quite satisfactorily.

Mr. HINDMAN: I think that is immaterial, your honor, and I object to it as being immaterial.

The COURT: It will do no harm in the record.

Mr. BURR: The answer is very, very erroneous in comparing to second feet, with an inch to the acre for sixty-three acres. We are conceding all that they would ask on that matter.

Mr. CAIN: Mr. Smith says he will stipulate that.

Mr. SMITH: We will stipulate that fifty miner's inches under a four inch pressure constitutes a cubic foot, and that forty miner's inches under six inches of pressure constitutes a cubic foot.

Mr. BURR: The answer asks for two second feet a year; it seems to state that one inch for sixty-three acres is equivalent.

The COURT: It states in another place that forty inches of water under a six inch pressure is equivalent to a cubic foot.

Mr. BURR: Well, we have it stipulated.

Witness excused.

B. E. HENDRICK, a witness called and sworn on behalf of the Government, testified as follows:

Testimony of B. E. Hendrick.

DIRECT EXAMINATION.

By Mr. BURR:

Q. Your full name?

A. B. E. Hendrick.

Q. What is your business?

A. Farmer.

Q. How long have you been a farmer?

A. I have been farming myself about twenty years.

Q. How long have you been a farmer on irrigated land?

A. About four or five years.

Q. And where?

A. In the Okanogan.

Q. Where did you farm before that?

A. I farmed in Iowa and—well, I worked in Montana on a farm, and Colorado.

Q. How much land have you in the Okanogan country?

A. I have forty acres.

Q. How much of that is irrigable?

A. Thirty-six.

Q. Is your land exceptionally adaptable to alfalfa, would you say?

A. Not any more so than the surrounding land, I would think.

Q. When did you put it into alfalfa?

A. Two years ago this spring.

Q. How much of a crop did you get last year, Mr. Hendrick?

A. I got about thirty ton.

Testimony of B. E. Hendrick.

Q. How much land have you in alfalfa?

A. About six and a half acres.

Q. How much water did you use on that?

A. Well, I don't know in acre feet.

Q. How much land have you that is not in alfalfa?

A. Twenty-eight and a half—I think I have got twenty-nine and a half.

Q. How many crops did you get last year?

A. I got two full crops and the third crop wasn't very much. I did not have any water for it at all.

Q. You were short of water for the last crop?

A. Yes, sir.

Q. Do you consider that you can raise alfalfa with two and a half acre feet measured to you at the land?

Mr. HINDMAN: Objected to, your honor; he has not shown himself qualified.

The COURT: I will sustain the objection. He does not know how much he used himself.

Q. Based on the information that you have given as to how much water you were using, which I will introduce by a later witness, can you raise alfalfa with two and a half acre feet?

Mr. HINDMAN: I object to that, your honor.

Mr. BURR: If he assumes as correct the figures that he is given, which I will later prove.

The COURT: He says he does not know how much he used on the alfalfa, as I understand him.

A. I could not state how much I used, because I used it in connection with my orchard, and I didn't ever keep any account of it, and there wasn't any weirs to measure it out to me anyhow.

Testimony of B. E. Hendrick.

The COURT: I think your basis of comparison would be of very little value then.

Mr. BURR: He may give it for the best of his belief on the subject.

The COURT: He may give it and I will consider it for what it is worth.

A. In acre feet?

The COURT: Yes.

A. Well, I don't think that I used over two feet.

Q. On your alfalfa?

A. On my alfalfa.

The COURT: For the two crops?

A. For the two crops.

Q. With two and a half acre feet do you think that you could raise three crops?

A. Yes, sir.

Q. How many times did you irrigate?

A. I usually irrigated seven or eight times for alfalfa.

Q. Will you give as nearly as you can when you irrigated?

A. I should irrigate about the 25th of April and then—oh, two weeks—every two weeks after, say.

Q. How late in the fall did you irrigate last year?

A. July.

Q. Until when?

A. July.

Q. Do you recall what time in July?

The COURT: He irrigated until he ran out of water.

Testimony of B. E. Hendrick.

Mr. BURR: That is the idea, your honor, exactly.

Q. Are you familiar with the new lands on the project, generally?

A. Yes, sir.

Q. In your opinion can the new lands of the project be irrigated for alfalfa with two and a half acre feet?

Mr. HINDMAN: I object to it as incompetent and irrelevant.

The COURT: You may answer.

A. If used judiciously it could be.

Q. Have you any official connection, Mr. Hendrick, with the Water Users' Association?

A. Yes, sir; I am president of the association.

Q. How long have you been such.

A. Two years past.

Q. When the lands have been in alfalfa for a number of years, in your judgment will it be possible to get along with less water rather than more?

A. It would be my opinion that it would require more water the first year than it would later on.

Q. More water the third year than the tenth, in your judgment?

A. Well, possibly, I presume.

Mr. BURR: That will do. Take the witness.

CROSS-EXAMINATION.

By Mr. SMITH:

Q. Mr. Hendrick, your land is located on what is known as the second bench there, isn't it; that is, there is a bench of vast amount of irrigated land which is above your land?

Testimony of B. E. Hendrick.

A. I have some on both benches.

Q. Where have you got your alfalfa?

A. On both benches.

Q. On both benches?

A. Yes, sir; it is in two or three different tracts.

Q. And how many acres did you say you had?

A. About six and a half.

Q. When you come to irrigate that you just take whatever water you want and use it on your alfalfa and take it off again when you think you have got enough?

A. I wish I could.

Q. Well, isn't that the way you do it?

A. No, sir; I don't take all I want, because they never deliver it to me. My deliveries are made from two different weirs and in that way I cannot get—from the upper canal I have twenty-one acres and from the lower canal I have fifteen, and it makes two heads of water all the time.

Q. But when you irrigate your alfalfa you take all that you can get, don't you?

The COURT: Of your own water?

A. Practically all I can get of my own water, yes. I irrigate all I can of the alfalfa, and if I want I irrigate my trees, and if I don't I turn it off.

Q. The most of your land lies on this lower bench, doesn't it?

A. No, sir; the most of it lays on the upper bench. In fact, I have twenty-one acres up there and fifteen below.

Testimony of B. E. Hendrick.

Q. Have there been some sprnigs break out on your land since the irrigation of that tract?

A. There is one broke out.

Q. You have some more springs, haven't you?

A. I had one spring there before the Government ever came in.

Q. Since the Government came in another one has broken out?

A. Yes, sir.

Q. And you get the benefit of that on your land?

A. No, sir, that is down twelve or fifteen feet in a canyon down below, not on my land.

Q. How far is this from your land?

A. About fifteen feet.

Q. Where has that spring come out on the second bench?

A. It comes out in a little canyon that runs into the south, that runs into the lower piece, probably twenty rods.

Q. Is that spring from surface water, or water that has seeped down through ground from above and bursted out?

A. It is probably from water that seeped down.

Q. And that has come down about fifty feet?

A. Well, it would be a little more than fifty feet from the water level on the upper bench.

Q. And when did the Government commence irrigating on the flat above?

A. I think it was four years ago.

Q. Anywheres near close to your land?

Testimony of B. E. Hendrick.

A. Well, they commenced on my land when they commenced irrigating along the land on the project.

Q. And when did this new spring break out?

A. That fall or the next spring.

Q. The same fall that the Government commenced or the next spring?

A. Well, it might have been the next spring, I would not say positively.

Q. That water came through there pretty quickly, didn't it?

A. Yes, sir.

Q. The land all through the project up there and all through that country is patchy, isn't it; that is, some places the soil is deep and of one character and in another place it is light and gravelly, and all that sort of thing?

A. Yes, sir.

Q. Senator Poag has land of that kind, hasn't he?

A. I think he has. I am not very familiar with his soil, the depth; I have never investigated it.

Q. Do you know anything about Mr. Bennett's land?

A. No, sir.

Q. Don't know anything about the character of it at all?

A. No, sir.

Q. Or you don't know anything of the subsoil under his land?

A. Nothing whatever.

Testimony of B. E. Hendrick.

Q. You commenced irrigating for the first time, I understand, some four years ago.

A. Yes, sir, I think so, four years ago this spring, if I remember correctly.

Q. And your irrigation experience has been during that time on your own land?

A. I had experience before that. I worked on an irrigating ranch two years in Montana, and I irrigated for one season on the East place, up near Okanogan.

Q. I was mistaken; I thought you commenced irrigating four years ago when the Government commenced

A. I did on my own place.

Q. The East place, that is up on Johnson Creek, isn't it

A. No, sir, that is south of Dr. Poag.

Q. South of Dr. Poag? Last fall, when you quit irrigating, they were having a shortage of water, I believe you say, and what happened to your alfalfa?

A. Well, it failed to grow.

Q. It burned, did it

A. No, it did not burn; it just didn't grow.

Q. How many tons of alfalfa should be raised off of six acres of ground well irrigated?

A. Well, it will vary from six to eight.

Q. Six to eight tons?

A. I think so.

Q. Well, if you had gotten even six, you ought to have had thirty-six tons, shouldn't you?

The COURT: I would not take time to figure that

Testimony of Millard H. George.

out. I will figure it out myself when I have more time.

Mr. SMITH: That is all.

RE-DIRECT EXAMINATION.

By Mr. BURR:

Q. Have you got a well on your place?

A. No, sir.

Q. In your judgment, with four months' irrigation season, if you had water for that four months, for the full four months, would that be sufficient to raise three crops?

A. Three crops of alfalfa?

A. Yes.

A. It would for me.

Witness excused.

MILLARD H. GEORGE, a witness called and sworn on behalf of the Government, testified as follows:

DIRECT EXAMINATION.

By Mr. BURR:

Q. Your name in full?

A. Millard H. George.

Q. What is your occupation?

A. Farming.

Q. Where?

A. On Poag Flat, at the present time.

Q. How long have you been a farmer, Mr. George?

A. Ever since I was old enough.

Q. Whereabout?

A. In Illinois and Washington.

Q. How much of that is experience on irrigated farming?

Testimony of Millard H. George.

A. Well, for the last three years on irrigating and three years before that on partly irrigated and sub-irrigated. Irrigated by some springs and sub-irrigated from a river.

Q. What are you raising in Okanogan?

A. I am raising alfalfa now. Well, in fact, that has been my main crop ever since I have been in Washington.

Q. Have you some land that is not in alfalfa?

A. I have some dry land, yes.

Q. But of the cultivated land?

A. Of the cultivated land in alfalfa and garden.

Q. How much is the area of that?

A. Of the irrigated land?

Q. Yes.

A. Why, I paid the Government for six acres of water. It has not all been in alfalfa. This spring I finished seeding.

Q. When did you put that in?

A. It will be two years in July and August.

Q. How much did you cut in the year 1911, Mr. George?

A. Last year?

Q. Yes.

A. How many crops?

Q. Yes.

A. Three crops.

Q. When did you irrigate for those crops?

A. I irrigated once a month as near as could be done that year. The ditch broke several times.

Testimony of Millard H. George.

Q. How late did you get water?

A. The last date I got water was in July.

Q. Do you recall what time in July?

A. The last days of July. The water was shut out of the ditch the first of August, so that we had to irrigate in July if we got that irrigation.

Q. How many tons did you get.

A. About forty tons.

Q. How do you know it was forty; how did you estimate the forty?

A. Well, in two ways. One way was by the number of loads and the other way was the number and size of the sacks.

Q. Will you describe that briefly.

Mr. HINDMAN: I think that it is immaterial.

Mr. BURR: All right.

Q. What is the character of your soil, Mr. George?

A. Volcanic ash is the soil, underlaid with coarse gravel, boulders and sand.

Q. How do you know?

A. Digging water pipe trenches there, and taking out rocks.

Q. How many of them have you dug?

A. Two of them; dug one dry one, and one wet one.

Q. How far was it down to the water?

A. It was about twenty-five feet to the water.

Q. Any sub-irrigation anywhere?

A. No, sir, absolutely dry, nothing green growing in it, wild state around it.

Q. Is your land well adapted for getting along with a light amount of water or not?

Testimony of Millard H. George.

A. Well, it is about similar land to anything on the project. It lays rather high, part of it, and it had got a good deal of slope and underlaid with very coarse rock and gravel, at places so much that we did not attempt to clear the boulders out of the soil, anything that did not interfere with the mower we left it in the ground.

Q. Basing your judgment on the amount of water which you are told by the Government people you are receiving—and I will prove that later, your honor—can you raise three crops of alfalfa on two and a half feet?

A. Yes, sir, if I get as much water as I got last year I am satisfied I can get three crops.

Q. When your alfalfa is older will you be able to get along with less?

A. I think I will, yes, it is a lot deeper, a better stand.

CROSS-EXAMINATION.

By Mr. SMITH:

Q. How many years have you been irrigating, Mr. George?

A. Well, on that place three years. In a small way on the river I irrigated some small tracts and sub-irrigated.

Q. That is the Pebstone place?

A. Yes, sir.

Q. What is the contour of the surface of your land where your alfalfa is located?

A. It is rather rough, rolling, and I could not level it on account of the boulders that were in it, and I had to irrigate it just as it lay; some of it lays low while some lays high and it slopes very much.

Testimony of Millard H. George.

Q. Isn't it in a sort of sag?

A. No, there is some of it that it is in a shape that it goes off slanting when the water gets away from you, it is gone. It is like feeding a horse in a box with a crack in it.

Q. How much of your land lies in a sag?

A. Very little, one-fourth of it, about.

Q. Is it on the edge of a sag?

A. No, what is in the sag is practically on the farther side, very small proportion.

Q. All of this in the sag is down in the valley?

A. On the side hill.

Q. This sag is what we might term a small or a young pothole, isn't it?

A. I don't know what you would call it; it lays to the head of the tract. The water all runs from it; it does not run into it, but runs away.

Q. As a usual thing in that country, in those low sags and at the foot of the benches, the soil is heavier, is it not?

A. Yes, the sag is probably better soil than some land on the top.

The COURT: How much land do you have water right for?

A. Six acres.

The COURT: Six acres is all you have the water right for?

A. Yes.

Mr. SMITH: Let me ask you how many acres of alfalfa you have in?

Testimony of Chester Edwards.

A. I estimated it five, and measuring it accurately it was a little less than five.

Witness excused.

CHESTER EDWARDS, a witness called and sworn on behalf of the Government, testified as follows:

DIRECT EXAMINATION.

By Mr. BURR:

Q. Your name in full and occupation, Mr. Edwards.

A. Chester Edwards.

Q. Your occupation?

A. Civil engineer.

Q. How long have you been a civil engineer?

A. Two years.

Q. In what capacity

A. I have worked for the Reclamation Service since June, 1910; part of the time on construction. The last year I have been on hydrography on the Okanogan project.

Q. Who keeps the records of the water deliveries on the Okanogan project, Mr. Edwards?

A. I have kept them for the last year, the season of 1911 and this season.

Q. How much water was delivered to Mr. George in 1911?

A. 3.87 acre feet for his cultivated area. This survey was made with a plane table survey.

The COURT: 3.87?

A. 3.87.

Mr. BURR: Q. That is in acre feet?

Testimony of Chester Edwards.

A. That is in acre feet.

Q. What was the area?

A. 4.4.

Q. How much water was delivered to Mr. Hendrick the same year?

A. 1.26.

Q. Acre feet per acre.

A. Acre feet per acre.

Q. How much land has he in alfalfa?

A. A little over six acres.

Q. Are you familiar with the state of cultivation on Mr. Bennett's land with regard to the suitability for economical irrigation

A. Why, there is portions of it that is in fair shape.

Q. Are you familiar with it, is my question.

A. I am.

Q. What is the condition of it?

A. There are portions of it that are in fair shape. The south end is in very poor condition, between fifteen and twenty acres.

Q. Describe it, please.

A. On the east side it is not even level at all, and there was some places I was over the land this spring and it showed a lack of water on the high points and an oversupply on the low points, showing it was in a pretty poor condition to irrigate.

Q. How much difference in level would there be between the high points and the low places?

A. Why, there was as much as a foot and a half in some places.

Testimony of Chester Edwards.

Q. How can he irrigate the stretches between those two levels in order to get a crop?

A. It would require considerable wild flooding. You would have to swamp the land from the low place in order to get anything on the high places at all.

Q. Are you familiar with any of the land that is partially level?

A. I am.

Q. Did you take any levels?

A. I did.

Q. Will you give us the result of those readings?

A. From the north end of the place there is a long check system, the checks are not sufficiently high to enable the water to get all over the land, it slopes, and it is in fair condition, the slope to the right, for economic irrigation, but the checks are too long, being about five acres, the checks will average about fourteen hundred feet. These checks, I believe, were cut down by Mr. Bennett some time between the 26th of April and the 10th of May.

Q. He has cut them in two?

A. He has cut them in two, the upper end about five hundred feet.

Q. Is it such that he can irrigate more economically than he has in the past?

A. I believe so.

CROSS-EXAMINATION.

By Mr. SMITH:

Q. How old are you, Mr. Edwards?

A. Twenty-five.

Testimony of Chester Edwards.

Q. Did you ever irrigate any yourself?

A. No, sir.

Q. And all you know about irrigating is what you learned out of books?

A. No, sir; my observation on the Okanogan project and the Yakima country.

Q. You have seen some irrigation?

A. I have.

Q. What is that paper you have in your hand?

A. That is the affidavit I made for the amount of water Mr. Hendrick——

Q. What is it?

A. The affidavit I made in regard to the amount of water Mr. Hendrick and Mr. George used in 1911.

Mr. BURR: We were prepared for a temporary injunction.

Mr. SMITH: Q. Why were you using it here just now is what I want to get at.

A. I wanted to get at the exact amount Mr. Hendrick used, one and twenty-six hundredths.

The COURT: To refresh your memory.

Mr. BURR: We will use the original record, if you prefer?

Mr. SMITH: No, we don't want it.

Mr. BURR: All right.

Mr. SMITH: Q. You don't know anything about what kind of soil Mr. Bennett has?

A. I have been over his place.

Q. Well, you just walked over it?

A. Yes, sir.

Testimony of James Shull.

Q. Never dug into it?

A. No, sir.

Witness excused.

JAMES SHULL, a witness called and sworn on behalf of the Government, testified as follows:

DIRECT EXAMINATION.

By Mr. BURR:

Q. Your name in full, Mr. Shull?

A. James Shull.

Q. And what is your business?

A. Ranching, farming.

Q. How long have you followed it?

A. Well, practically all my life, since I have been big enough.

Q. Whereabouts?

A. I have put in about twenty-three years in this country, and about four years in Canada and the rest of the time in North Carolina.

Q. How long did you say here?

A. About twenty-three years here.

Q. Are you farming now?

A. Yes, sir, trying to.

Q. Mr. Shull, have you ever farmed near by Mr. Bennett's place?

A. I farmed what is known as the Heizman place there for a while.

Q. Will you tell the Court what Mr. Bennett's methods of irrigation are?

A. Mr. Bennett?

Q. Yes, sir.

Testimony of James Shull.

A. Why, I don't know.

Q. Was Mr. Bennett on the ranch at the time you had the Heizman place?

A. He was a portion of the time, I think; I was there a year or so before he was.

Q. You were where?

A. At the Heizman place.

Q. In what sort of shape is the Bennett place for irrigation?

A. Well, a portion of it is in poor shape and some of it, I believe, in the the rough, quite rough.

Q. How many irrigations are necessary in that country, in that part of the valley?

A. Well, it depends a little on the season; it varies a little.

Q. Yes.

A. When I was on the Heizman place I raised three crops of alfalfa with three irrigations.

Q. One irrigation to a crop?

A. Yes, sir.

Q. Can the Bennett ranch be irrigated with one irrigation to a crop?

A. I presume at the time I done that, it could.

Q. Have conditions changed?

A. Well, the last couple or two years have changed some from the ordinary.

Q. Been a little drier lately, you think, is that the idea?

A. Yes, sir.

Q. Water has been measured to you by the Government the last few years, has it or has it not?

Testimony of James Shull.

A. Yes, sir.

Q. In your judgment is two and a half acre feet sufficient for the land that you are now irrigating for three crops of alfalfa?

A. Well, I have been getting along fairly well so far. I am getting my water three feet at the creek.

The COURT: What do you say?

A. I get my water at the creek, three feet at the creek, the head of my ditch. I suppose it would amount to two and a half feet perhaps.

Q. In your judgment does the defendant's place require less or more water than the average land?

A. Well, the land in that country varies so much. It would not require so much, I don't think, as mine would, because mine is known as high, dry bench land, and his is between two mountains or hills, in the valley like.

Q. How much have you been receiving for your present place?

A. Water?

Q. Yes.

A. At the rate of three feet at the creek.

Q. And you think Mr. Bennett's place cannot be quite as much as that?

A. Well, I don't know; it depends. I am raising some alfalfa and some trees. I have had very good success as far as I have gone.

Q. What would you say about the necessities for the place?

A. Well, I am of the opinion that Mr. Bennett's

Testimony of James Shull.

place would not take quite as much water as mine, owing to the conditions of the land; it would look reasonable to me.

Q. Are you familiar with the portion of the land sufficient to identify that in your recollection (showing Government's Exhibit 2 to the witness); this is north around here.

A. Yes, sir. Well, it looks like what we call there the rocky strip.

Q. When was that first irrigated, if you recall?

A. I am not sure.

Q. Not sure?

A. No.

Q. What is the condition of that land there, Mr. Shull?

A. It is very rocky.

Q. Would you call that arable land upon which water could be beneficially used or——

A. No, sir, it is not irrigable land unless there be a large amount of work put on it and the rocks taken off.

Q. But in the present condition you would not call it arable land?

A. No, sir, could not make any use of it.

Q. Did you testify how long you had that Heizman place adjoining Bennett's?

A. I have worked it four years.

Q. You are thoroughly familiar with Mr. Bennett's place?

A. Well, I had occasion to pass through it, going

Testimony of James Shull.

up past for my water, and I worked some on the place.

Q. Worked some on the place?

A. I worked some on the place, not a great deal.

Q. Does water run out from that marsh as a rule, Mr. Shull?

A. In the summer season I believe it does.

Q. Runs pretty steady, does it, or only intermittently?

A. Well, during the summer season I think it runs pretty steadily.

Q. How much of a stream?

A. Well, last summer a year ago when I was putting up hay there there was quite a stream. I did not see anybody measuring it.

Q. How wide would you say that brook was?

A. Well, where I went to get water I would say it was a foot or so, or a foot and a half deep.

Q. Run pretty slow or quite fast?

A. About a foot per second.

Q. Was that strip of land, that rocky strip you call it, ever plowed during the time that you were at the adjoining place?

A. No, sir.

Q. Was it ever irrigated to your knowledge?

A. I don't think it was irrigated while I was there. I think Mr. Bennett irrigated it probably soon after I left there.

Q. What year did you leave?

A. I left in March, 1904.

Q. You left the ranch?

Testimony of James Shull.

A. Yes, sir.

Q. Up to that time that land had not been irrigated to the best of your knowledge?

A. I don't think it had. There might have been a small portion of it irrigated at that time, I am not sure, and I would not like to make a statement on that at all.

Q. How much alfalfa did you raise per acre, as near as you can estimate it, on the Heizman place?

A. Why, I don't know, only one year—one year I know how much I raised; I raised eighty-one tons on twelve acres.

Q. Mr. Bennett's land did as well as that, did it?

A. I presume it did; I did not measure the hay, but I measured my own.

CROSS-EXAMINATION.

By Mr. SMITH:

Q. You have signed up with the Government, as we call it up there, have you?

A. Yes, sir.

Q. Where is that land that you are irrigating and have been irrigating for some time with reference to the Bennett land?

A. My land is in section five, township thirty-three, North Range twenty-six.

Q. Well, it is off to the east how many miles?

A. Probably two miles, or maybe better than that, east.

Q. Now, Mr. Bennett's land lies in the coulee just below, where there is a split in the mountains that breaks off to the east and goes down to the town of Okanogan, doesn't it?

Testimony of James Shull.

A. Yes, sir.

Q. And your land lies on a bench down by this other break in the mountains and goes down towards Okanogan?

A. I should judge about two miles from the upper break to the town.

Q. Now, you sold part of your land a short time ago to Mr. Payne?

A. Yes, sir.

Q. Fred Payne, as we call him?

A. Yes, sir.

Q. How many acres have you in alfalfa on your place?

A. Now?

Q. Yes.

A. In alfalfa and clover I think about seven acres.

Q. And how much has Mr. Payne on the part that you sold to him, in alfalfa?

A. I think about two acres of alfalfa or two and a half and perhaps about an acre and a quarter or an acre and a half of clover.

Q. And how many acres has he in trees?

A. Mr. Payne?

Q. Yes. Just approximately, I don't expect you to be accurate.

A. Well, he has in the neighborhood of—I should think about nine acres.

Q. How many acres have you in trees?

A. Well, on the upper place I have about seventeen acres, I should judge, guessing at it; I have never measured it.

Testimony of James Shull.

Q. When you sold him the land you sold him the water also, did you?

A. Well, I sold him that subject to Government conditions.

Q. Yes, I mean you sold him part of your Government water that you had gotten?

A. That goes with the land, that is pertinent to the land, I could not separate it.

Q. That is three acre feet at the creek?

A. Yes.

Q. How far is the creek from your land where you take the water?

A. Well, it is—the Government headgate is just about a mile, I think, to where it goes into my field.

Q. Well, now, all told you have how many acre feet of water?

A. Acre feet?

Q. Or how many acres of water have you?

A. Thirty-four and a half, I believe.

Q. Now, you and Mr. Payne double up on using water; he takes all the water and irrigates, and then you take it all and irrigate?

A. We manage to take it about in—we have got thirty-four and a half acres, and we take it about on an average a day an acre.

Q. In other words, you rotate between yourselves; he takes it all for a while and you take it all for a while?

A. Yes, sir.

Q. And when you go to irrigate your alfalfa you shoot all the water onto the alfalfa and get it all?

Testimony of Laughlin McClain.

A. Yes, sir.

Q. And take it away from the trees?

A. Take it off of the trees and put it on the alfalfa, because we can get done quicker.

Q. That is the way you both do?

A. That is the proper way to do where anybody lives together.

Q. That is the way to irrigate alfalfa, isn't it, put a big head of water on it, and get it wet, and then take it off?

A. Certainly.

Witness excused.

LAUGHLIN McCLAIN, a witness called and sworn on behalf of the Government, testified as follows:

DIRECT EXAMINATION.

By Mr. BURR:

Q. Your full name, Mr. McClain?

A. Laughlin McClain.

Q. Your occupation, Mr. McClain?

A. Builder of irrigation systems.

Q. How long have you been so engaged?

A. About twelve years.

Mr. BURR: I want by Mr. McClain to prove the same sort of testimony that I did in regard to the Sunnyside unit, but very briefly, your honor.

Mr. HINDMAN: It will go in under the same objection.

Mr. BURR: If counsel will permit me I will ask a rather long and leading question in order to bring this matter up. It can just as well be done the other way, but this is much shorter.

Testimony of Laughlin McClain.

Mr. HINDMAN: Go ahead.

Mr. BURR: Q. Will you state your occupation with the Methow Canal Company?

A. I was the promoter of the Methow Canal Company, and at present its manager.

Q. Where is that?

A. In Methow Valley.

Q. Is that similar in climate to the Okanogan country or not?

A. Well, similar.

Q. Will you give the duty of water in the Methow Valley?

A. A cubic foot of water to each one hundred acres delivered between the first of May and the first of October.

The COURT: How much?

A. A cubic foot of water for each one hundred acres.

The COURT: Between what dates?

A. Between the first of May and the first of October.

Mr. BURR: Q. Is that successful?

A. I have not been in the Methow for three years, but as I understand it is pretty successful.

Q. Is it successful for the average crop, or only for fruit?

A. For the average crop.

Q. Where is that with respect to the Okanogan country, in regard to climate?

A. The climate is very similar, the elevation is probably three hundred feet higher.

Q. Will you make the same statement with regard

Testimony of Laughlin McClain.

to the Fruitland Irrigation Company, where is that and what is the duty of water, and so forth?

A. The Fruitland Irrigation Company is a canal near Kettle Falls, in Stevens County.

Q. Your connection with that company?

A. I completed the system and was president of it for four years.

Q. What is the duty there?

A. The duty there is a cubic foot for 160 acres.

Q. For how long?

A. From the first of June until the 15th of September, three and a half months.

Q. Are you familiar with the Okanogan country?

A. Yes.

Q. Is the climate similar to the Kettle Falls country or otherwise?

A. There is more rainfall in the early season at Kettle Falls, at the Fruitland system, than you have in Okanogan.

Q. More?

A. Yes, sir, in the early seasons.

Q. The Wenatchee Canal Company, what is the connection that you have had with the Wenatchee country?

A. I spent three years and a half at Wenatchee, was occupied largely in prompting at that time a high line canal.

Q. What is the duty in that country of water?

A. A cubic foot per second to each one hundred acres.

Q. Is that successful?

Testimony of Laughlin McClain.

A. It is very successful?

Q. The lands are not selling slowly because there is not enough water delivered?

A. I have never heard any such objection.

Q. Is there alfalfa in that country with that duty?

A. Yes, sir.

Q. Is it successful for alfalfa with that duty?

A. Yes.

Q. You are familiar with it down to date, are you?

A. To within the past six months.

Q. How is the climate compared with that at Okanogan?

A. It is very similar.

Q. More or less——

The COURT: The Court will take judicial notice of the climatic conditions.

Q. And the Gordon Valley, Ferry County, have you ever been connected with irrigation there?

A. Yes, I am president of the Kettle Falls Canal & Land Company.

Q. What is the duty there, please?

A. One cubic foot to each one hundred acres.

Q. And what is the length of season there?

A. From the first of June to the 15th of September.

Q. Is that duty successful?

A. It is a new proposition, but there is no objection raised to it by even those that have lived there for ten years, and they have used some water.

Q. Is it intended to raise any alfalfa there?

A. Yes, probably one-half of the district will be in alfalfa.

Testimony of Laughlin McClain.

Q. How long have you been familiar with the Okanogan country?

A. About twenty years.

CROSS-EXAMINATION.

By Mr. SMITH:

Q. I understood you to say, Mr. McClain, that you are an irrigation canal promoter.

A. Yes, and builder.

Q. And builder. You usually promote those canals that trade the farmers water or give them water for half their land, and you take the other half of their land?

A. 'Not usually.

Q. That is the way you did it up in the Methow, isn't it?

A. No, only in a case where a man has no money to buy water, and in order to help the farmer out, we take the land.

Q. In other words, if he has no money you take his land?

A. Yes, that is the only thing he has to take.

Q. And if he has money, those in the Methow, you charged them eighty dollars per acre, didn't you, water right?

A. Forty dollars.

Q. Well, you raised that to eighty, didn't you, Mr. McClain, a little later?

A. I am speaking now when the system was completed. The proposition was, the man that sat down and waited all these years until his neighbors helped

Testimony of Laughlin McClain.

make a success is now paying eighty dollars, and he may be; I have not been there for three years.

Q. Well, you raised it to eighty, didn't you?

A. No.

Q. Now, Mr. McClain, do you know it to be a fact, or don't you, that the Methow Valley has a heavier snowfall than the Okanogan Valley, or even up at Conconully?

A. I would presume that the Methow Valley would have heavier snowfall than the Okanogan.

Q. And it has more rainfall, hasn't it?

A. I don't think it has.

Q. Now, when you went into the Methow to launch that Methow canal you found the Methow Valley generally in a high state of cultivation and irrigation, didn't you?

A. Only to a small extent.

Q. Well, take such men as Thurlow and Risley and all the whole length of the country, banker, Wetzel and Fulton——

A. Risley was the only man practically irrigating—the only man you have mentioned that was under the portion of the country that we irrigated.

Q. Well, now, you found when you went in there that those men that had been irrigating there for twenty years claimed that it required all the way from one to four miner's inches to irrigate an acre of alfalfa, didn't you?

A. Yes, that is right.

Q. And they still claim that, don't they, or did claim it when you left?

Testimony of G. H. Wheeler.

A. Well, some of them claimed it when I left.

Q. Well, all of those who had the water claimed it. Did you see any of the ranches of those fellows who were irrigating at that rate?

A. Oh, yes.

Q. Good ranches, weren't they?

A. Very good ranches, yes.

Q. Raised good crops?

A. Yes.

Witness excused.

Mr. BURR: That is our case, your honor.

Mr. SMITH: It is stipulated and agreed, as I understand it, between the plaintiff and defendant in this case that the defendant has a prior right over the plaintiff to the use of the water in Salmon Creek for all the land that they had irrigated by actual diversion and use, and that that use has extended over a period of more than ten years prior to the commencement of this action, except as to the patch of ground that has been referred to, and will be referred to as the rocky ground, that tract to remain open to proof as to the time on which water has been used, if at all.

Mr. CAIN: It is satisfactory with the qualification that they are entitled to the use of so much as can be used by economical methods.

The COURT: According to the usual course of husbandry in that country.

Exception.

G. H. WHEELER, a witness called on behalf of the defendant, having been first duly sworn, testified as follows:

Testimony of G. H. Wheeler.

DIRECT EXAMINATION.

By Mr. SMITH:

Q. Your name is G. H. Wheeler?

A. Yes, sir.

Q. Where do you live?

A. Okanogan, Okanogan County, Washington.

Q. What is your business or profession?

A. Civil engineer, surveyor.

Q. How long have you been engaged in surveying?

A. Civil engineering, twenty-eight years.

Q. Have you had any experience in irrigation work, ditches?

A. In small ways, yes. No large public irrigation work.

Q. Mr. Wheeler, I hand you a map marked Defendant's Exhibit No. 3, and I will ask you who made that map, if you know?

A. I did.

Q. Are you acquainted with Mr. Bennett's land or lands of the defendant?

A. Yes, sir.

Q. Did you ever make a survey of those lands?

A. I did.

Q. Or a part of them?

A. Yes.

Q. Was the object of that survey to ascertain the number of irrigated acres on that place?

A. Yes, sir.

Q. How did you make the survey—that is, what method?

Testimony of G. H. Wheeler.

A. I used the steel tape and Unions transit, and I proceeded with the same methods as I would in making a process survey, and calculated in the matter required by the United States Surveyor General's office in determining accurate areas.

Q. That was latitude departure?

A. The only system they tolerate.

Q. Mr. Wheeler, would you tell the Court whether that map is an accurate representation of the conditions as you found them on Mr. Bennett's place from an actual survey in the field?

A. It is.

Q. I wish you would explain to the Court what that map represents, that is, the light green, and so forth—explain the map to the Court.

A. The light green represents the area which Mr. Bennett appears to have irrigated, and which he told me he did irrigate, and which shows the irrigated land.

Q. And what does this you have termed swamp land?

A. That is an area of just as it is named; it is called swamp land; it is covered with blue grass, and the most of it was more or less cat-tails, we call them, whatever their true name is—not tules strictly, but cat-tails, cat-tail swamp.

Q. How many acres did you find to be in that swamp?

A. 20.22.

Q. How many acres did you find to be under irrigation, and what Mr. Bennett told you is under irrigation?

Testimony of G. H. Wheeler.

A. Is 63.39 acres of which .57 acres lay outside of his ground and on some one else, or the public domain, which he does not claim. Deducting the .57 which he does not claim as his own leaves 62.82 net area which he irrigates.

Q. When did you make that survey?

A. June 21, 22, 23, 1909.

Q. Did you find on that land a piece of ground that we have referred to on this trial of rocky ground—I mean identify the ground we speak of in that way?

A. Yes.

Q. Is that included in your map of irrigated ground?

A. Yes, sir. I did not make any distinction between what he cultivates and irrigated; I put all irrigated land in one area.

Q. Did you see any evidences of irrigation on that rocky patch of ground?

A. Yes, sir.

Q. What were those evidences?

A. Oh, a good part of the ground, a considerable of the ground is strewn with large boulders, but it shows water has been run over it, little indications, strong indications of having been irrigated and placed under the ditch where he has turned it out; also the vegetation, grass, largely natural grass; to a considerable extent timothy, and I think there was alfalfa; I won't be positive, though, but I know there was a rank stand of forage grasses growing over it, rocks and all, but still bore a considerable crop of forage.

Testimony of G. H. Wheeler.

Q. Are there patches other than that down in there somewheres that looked as though it had not been irrigated, or was dry—that is included in your——

A. I didn't notice any. My trip on that occasion I went around the exterior of the ditch wherever I had to go to make a survey. There may have been points in there which he had not carried water to and there may not; I can't say.

Mr. SMITH: I will say to the Court it is admitted in the record also it will appear there are two little patches in there, marked here that had never been put under water.

Q. Have you made any examination of that recently?

A. Yes.

Q. When did you make such an examination?

A. It was about two weeks ago; I can't give you the date.

Q. What was the purpose of that examination, and what was the extent of it?

A. It was for the purpose of ascertainiing what lay under the surface that could not be seen from the surface, what was the character of the sub-soil.

Q. And what did you do in the way of making that investigation?

A. Mr. Zediker and myself and Mr. Bennett was along. We took a long handled shovel and we put in about two hours and a half or three hours digging the test pits to a depth of from two and one-half to four feet and two inches—that was the deepest one—as far as

Testimony of G. H. Wheeler.

we could go with a long handled shovel—to ascertain what the real nature of that soil was.

Q. Now, would you take a pen or something and indicate on that map the place about where you sank those test pits?

A. I know we sank two holes in the orchard, and that is indicated here in the north forty; we dug three holes in the north forty. I guess that will be sufficient description. I can't say just how many holes we dug; we dug perhaps eight in various portions over it. I did not locate them on the map, nor take data of each hole; that Mr. Zediker did. He took note of the holes, of each one, and I did not.

Q. I do not expect you to be entirely accurate, but give us your best recollection of it.

A. Of the several holes?

Q. Yes, please.

Mr. SMITH: In this northerly forty I will say to the Court that we show that those investigations had been made by three different sets of men, and that is why I want to get his down pretty close.

A. In the orchard we went through about seven inches of loam and granite; it was a fine granite wash with considerable humous in it, an excellent soil about seven inches, though rather porous. Underlying that in the two holes we dug was about ten inches of a loose gravel and sand. After we got through that we went down about two and one-half feet, or as far as we could go—I didn't get to the bottom of it—was more loam similar to the surface. That was the character of the

Testimony of G. H. Wheeler.

two holes in the orchard. One other was dug—we dug two others in the northerly end; they were of the same general character. The details of that Mr. Zediker was taking down, and I did not duplicate them.

Q. Go on and tell the Court what else you found.

A. We noted the gravel bench lying in the east half of the east side of the tract and near its upper end that was very gravelly, but it is irrigated and raises alfalfa.

Q. What did you find in your test pit there?

A. All was rocky so that we could not dig into it to any considerable depth. It is gravelly, yet if irrigated it raises an excellent crop.

Q. How thick was the soil at that point?

A. Oh, a matter of a few inches, two or three or four inches; the soil was very thin gravelly; it was gravel.

Q. After you got through with the few inches on the top what did you find?

A. It was coarser.

Q. Now go the next places and tell the Court what you found.

A. In the two southerly forties and on the west side of the drain from the swamp there was something like, I should judge, ten acres that I had previously spoken of, that was covered, to some extent, with boulders, large and small; had not been cleared, and had not been put in condition for proper cultivation, although it is partially cultivated, to the extent of raising a good crop of hay, or at least furnishing lots of forage. Down at the lower end we went then to a point marked on this map—oh, at the lower end of the map there is a large

Testimony of G. H. Wheeler.

well said to have been dug by Mr. Heizman cribbed up. We were unable to see below the surface of the water, which stood at that time about five and one-half feet below the surface, perhaps six. There was something like ten or twelve feet of water in the well. The soil there is what I would call a gumbo, plenty of soil near the surface, but the deposits thrown off from that why was a mixture of gumbo, and very many—it was full, simply loaded with shells of just such a nature as I have observed on the borders of fresh water lakes and in the vicinity, little snail shells, or fresh water snails, that is common.

Q. Have you covered all the test pits that you sank?

A. That I have—they were also similar—that was in the country—that looked like loam, a nice quality underneath—that was a strata of gravel and that we went through it—when we went through it then we found more of a soil of a rather porous nature—sometimes just a little sticky, but usually quite porous and the lower end was of a gumbo nature.

Q. Now, did you find any volcanic ash soil on that place?

A. There was one place in the orchard that I saw a trace of volcanic ash. Over the rest of it I did not notice any.

Q. Did you make any water measurements or water tests on that occasion?

A. I, no. Mr. Zediker took some water measurements; I checked his readings up, but made no figures on it.

Testimony of G. H. Wheeler.

Q. Were they from weirs that have been put in one of these ditches by some one?

A. Yes, sir; weirs that we found in, nicely constructed, properly constructed.

Q. What kind of weirs, cippoletti weirs?

A. Such as the Government usually uses; I wouldn't say what their name is.

Q. Can you show us on the maps about where those weirs were located?

A. One was the lower one, was near the south boundary of Mr. Bennett's land, one what is marked "M" on this plat, and the other was at the point at the upper end of the ground, or just below the division weir, are the divisions between the two ditches running on each side at the point on this map between the letter "M" and "O" and the word "land."

Q. Does the ditch, the main ditch, coming on to Mr. Bennett's land as you have shown it there represent the intake of the ditch from the creek or point near the spillway, or where is that?

A. I do not recall any spillway, but that is the main ditch that comes from the creek.

Q. That is not the intake?

A. Oh, no, that is not the intake. The intake is about three-fourths of a mile or so upstream.

The COURT: The ditch runs from north and south through the place, does it?

Mr. SMITH: Yes.

Q. Mr. Wheeler, please tell the Court, if you know, how much soil as you found on the Bennett place is

Testimony of G. H. Wheeler.

adapated to the use and consumption of water—that is, whether it requires considerable water to irrigate it or a small quantity?

A. It runs very nicely for irrigating on a gentle slope from the creek to the swamp, ordinarily on a slope of perhaps six feet in a hundred, and slopes directly down from the ditch towards the swamp capable of irrigating nicely a nice slope for irrigating alfalfa, I would say.

Q. What do you know about the duty of water in that country up there on soil of that sort?

A. That would depend on the crop which was intended to raise.

Q. Well, alfalfa, and such crop as you found on the Bennett place?

A. As to the amount being the duty you mean the amount of water it would be necessary to properly irrigate it?

Q. Yes, to the best advantage.

Mr. BURR: I object to that, your honor, no foundation having been laid as to knowledge on that particular head.

The COURT: That is probably true.

Mr. SMITH: It is not a very good foundation.

Mr. BURR: Well, I will waive the objection.

The COURT: You may answer the question, if you know.

A. Well, for that purpose, for alfalfa, or timothy, on a slope of that nature, and with such a sub-soil with gravel lying underneath it I am of the opinion that it

Testimony of G. H. Wheeler.

would require something more than an inch to the acre to grow three crops of alfalfa. I think an inch to the acre would be ample, a miner's inch.

The COURT: What do you mean by a miner's inch to the acre, under what pressure?

A. Six inches.

Q. Do you know what is customarily allowed in that country, if there is any custom, for irrigating that class of crop, and that class of land?

A. A miner's inch under most circumstances is considered the standard.

Q. An inch to the acre?

A. An inch to the acre.

Mr. SMITH: We desire to introduce this map in evidence.

The COURT: It may be received.

The map having been admitted in evidence was marked Defendant's Exhibit 3.

Q. This inch to the acre that was under the six inch pressure?

A. Yes, sir.

Mr. SMITH: That is all. Cross-examine.

CROSS-EXAMINATION.

By Mr. BURR:

Q. What is the nature of this soil you call gumbo—is that clay soil?

A. I do not know the composition.

Q. Sticky soil?

A. The chemical elements of gumbo.

Q. It is sticky soil, isn't it?

A. It is decidedly sticky soil.

Testimony of G. H. Wheeler.

Mr. SMITH: Will you excuse me a minute. There is one thing I did not cover.

Q. Now where should this water be measured, this inch to the acre, as you have given it in this cause—that is, at the land—do you mean an inch of the land or an inch—

A. I mean it would require an inch of the land exclusive of what might stop the water in getting to the point of actually putting it on the crop.

Mr. SMITH: That is all.

Mr. BURR: Q. Did you notice the crop, the nature of the crop below the marsh, Mr. Wheeler?

A. Yes, sir.

Q. Did you notice the character of grass that there is there?

A. Yes, sir.

Q. I mean in the portion that you testified to as being rather rougher than the other below the swamp, and down there?

A. Yes, sir.

Q. Did you notice the ground at all?

A. I did, but it was three years ago and I couldn't tell you. There was everything—there was absolutely everything in the nature of forage on there—alfalfa, timothy and natural grass; there is a little of everything on it.

Q. You spoke of a miner's inch being recognized of the duty of water in that country—do you know of anybody in particular that claim a water right for a miner's inch besides Mr. Bennett?

Testimony of C. M. Zediker.

A. I spoke in a general way of the farmers from Montana to Idaho, and Montana and Washington generally, in the vicinity of which I had been laying out ditches for them for the last twenty-eight years—they always intend to have at least a miner's inch, if it is possible to get it, per acre; that is as much a standard as a quarter of an inch to the rod on the grade of those ditches.

Q. You were not referring to anybody in Okanogan claiming a right of that kind?

A. Not specially, although many in Okanogan whom I know have expressed the same sentiments.

Q. But you do not know of anyone that is claiming an inch to the acre except Mr. Bennett in Okanogan, do you?

A. I don't know that I could specify their names.

Q. How long have you been in Okanogan?

A. Twelve years.

Mr. BURR: That is all.

Witness excused.

C. M. ZEDIKER, a witness called on behalf of the defendant, having been first duly sworn, testified as follows:

DIRECT EXAMINATION.

By Mr. SMITH:

Q. Is your name C. M. Zediker?

A. It is.

Q. Where do you live?

A. Loomis.

Q. How old are you?

Testimony of C. M. Zediker.

A. Twenty-eight.

Q. What is your business or profession?

A. Irrigation engineering.

Q. Have you ever had any experience in actual irrigation?

A. I have.

Q. Tell the Court what that experience has been, please.

A. Well, from the time I was eight years old I have been in an irrigated country. During the year since 1900 I have been identified with irrigation work. Up to that time I was working on my father's place in the Yakima Valley and adjacent property under the Sunnyside canal; between 19 and 1900 I was with the operating department and construction also of the Sunnyside canal. For seven and a half years I was with the Yakima Company of Ione, and at the time the Government bought over the Sunnyside canal from the Washington Irrigation Company I returned and again took up work on that canal. During the season 1908 I had charge of seepage investigations on the lateral system of the Sunnyside canal. In the fall of 1908 I came to Brewster, and was there until July, 1910, constructing and operating what is known as the Shite Stone project at Brewster, bought in some twenty-five hundred acres of land at that point at the present time. From July to the present time I have been connected with the White Stone Irrigation Power Company at Loomis, Washington.

Q. Let me get again how many years you have been

Testimony of C. M. Zediker.

engaged in irrigation engineering, actually making them with your own hands?

A. Well, I have done considerable of it; I have done quite a little in this country, in the Brewster country.

Q. That is just south of the Bennett place?

A. That is some several miles south of the Bennett place in Okanogan county on the land there not only out on the main one, but also lands that would determine a coulee.

Q. How many years did you actually irrigate it for your father?

A. Oh, some seven years.

Q. Did that work consist of the actual spreading of water?

A. It did.

Q. Have you at any time made any examination of Mr. Bennett's land?

A. I have.

Q. When did you make that examination?

A. On the 22d day of May, 1912.

Q. What did that investigation consist of?

The COURT: Shorten it up by reference to the examination of last witness. He covered it very fully.

Q. Did you accompany Mr. Wheeler in making this investigation?

A. I did.

Q. Tell the Court what you found in the way of soil and sub-soil.

A. On the north portion of the ranch there is from six to eight inches of black loam, and underlying this

Testimony of C. M. Zediker.

is gravel sub-soil. In some places it is to quite a little depth and other places it is not so much. It is simply the effects of a wash coming down from the mountains either out of a small creek and spreading out so it is a conglomeration of a little of everything, and there is probably no twenty square feet at which you will find the identical layer that you will find on the other; it is simply a mass.

Q. Mr. Zediker, did you preserve any samples of the sub-soils that you encountered?

A. No, I did not.

Q. All right. I thought likely you had.

A. No.

Q. All right; go ahead and explain.

A. On the north of the swamp there is a very rocky point, in which we could not get down any depth on account of the boulders; and the south of the place we did not dig any test pits, for there on that there was a well there which gave ample evidence of the character of the soil at that end of the farm.

Q. What did you find the character of the soil to be at that end of the farm from digging from the well?

A. Well, it was gumbo, a blue soil with shells in it, seemingly the effect of sediment from a lake some past time.

Q. Will you tell the Court whether you, in your opinion, know the duty of water for irrigating alfalfa and for those crops, both from actual irrigation and from what your book speaks, and what you have observed?

Testimony of C. M. Zediker.

A. Well, I think I do. I kept the record the two seasons on the Brewster ditch and we have there two characters of soil. One is a sort of volcanic ash out on the main Brewster flats. There is a second class of soils lying between the coulee walls and——

Q. That would be something like the coulee walls of the Bennett place?

A. Yes, similar to that. There is a creek running down through a canyon, and they irrigate there and on along the foothills west of the town of Brewster. During the season of 1911 I had charge of the irrigation of the lands on what was known as the company ranch there, embracing this coulee, on which an orchard and alfalfa was growing. The character of the soil was practically the same as in all these canyon beds.

Q. Tell the Court what in your opinion is the amount of water necessary to produce crops of alfalfa, timothy, clover and such crops as Mr. Bennett is growing there on his land to the best advantage?

A. I would say one inch to the acre delivered at the land.

Q. Under what you mean a miner's inch?

A. A miner's inch and four inch pressure.

Q. Now, did you make any investigation as to loss of water in transportation to Mr. Bennett's place or near there?

A. I did.

Q. Would you take this map marked Defendant's Exhibit 3, and show the Court where you made those tests, and how and what they were?

Testimony of C. M. Zediker.

A. There is the three foot cippoletti weirs in the Spring Coulee ditch at the diversion of the Bennett and Heizman ditch—that is, I should say about forty feet below the point of the diversion of the Bennett and Heizman ditch. There is another weir down near the south line of Mr. Bennett's place in the Spring Coulee ditch, I would judge it is about the point marked "K" here on this map; there are three foot cippoletti weirs, the standard.

Q. In good condition, were they?

A. In good condition.

Q. What was about the general size of that ditch between those two weirs?

A. Well, it was two and one-half inch, I should say, at the bottom.

Q. And did you measure the amount going from the upper weir?

A. I did.

Q. And was there any water being diverted, turned out of the ditch between the upper and the lower weir?

A. There was at the time I went there.

Q. Well, I mean at the time you made the measurement?

A. At the time I made the measurement there was not.

Q. What volume of water did you find going over the upper weir?

A. Three and six-tenths cubic feet.

Q. And what did you find going over the lower weir when you measured it?

Testimony of C. M. Zediker.

A. Two and six-tenths.

Q. There was a loss in transportation of one cubic foot?

A. One cubic foot.

Q. And what is the distance?

A. Why, less than a mile.

Q. What character of soil did you find on Mr. Bennett's place; that is, was it volcanic ash, or what was it?

A. No, sir, it was not.

Q. What was it?

A. It was what we term a granite soil.

Q. Black granite?

A. There is a deposit on top, intermixture with granite, leaf mold which comes down from these mountain springs and underneath of it was this decomposed granite. The soil in general could be termed decomposed granite soil.

Q. This ditch where you made this measurement of water, that traversed land of the same general character as you examined?

A. It did.

CROSS EXAMINATION.

By Mr. BURR:

Q. You are connected with the White Stone project, Mr. Zediker?

A. I am.

Q. Are you familiar with the duty of water at the White Stone project?

A. You are speaking of the—

Q. Tracts that you made—

Testimony of C. M. Zediker.

A. At Brewster?

Q. Yes.

A. I am.

Q. The duty of water is one sixty acres a foot on one hundred sixty acres?

A. That is what the contract.

Q. That is rather high and dry, isn't it?

A. That is very dry, enough you cannot grow anything of an orchard with that quantity of water on that project.

Q. There are no friendly slopes to give it additional precipitation up there?

A. The precipitation secured in this country in the summer time is a detriment rather than a benefit.

Q. That is a novel doctrine; I am glad to hear that.

A. For this reason; that there is not sufficient precipitation at any time that the moisture goes down, but it forms a crust on the surface of your ground and has a greater tendency for evaporation. We have sixty-five acres there in orchard there at Brewster and from our experience every time we have a little shower it is a case of cultivate your land immediately, or we lose considerable.

Q. It is an incentive to proper cultivation then, is it not—when you cultivate that make a nice mulch which holds the moisture?

A. Certainly.

Q. That is all on that point. How much water do you figure you are going to get for the project, the White Stone project I referred to?

Testimony of C. M. Zediker.

A. We do not get very much there.

Q. What is your regular supply of water?

A. From creeks.

Q. I mean how much do you figure that?

A. I don't know whether that is really—those figures are rather confidential.

Q. No, I will withdraw that. You say you took no borings on the south part of Mr. Bennett's ranch?

A. No, sir.

Q. Where were those borings located?

A. Up in the northern portion.

Q. Weren't they located practically at the outlet of a slough coming down a canyon, draw coming down a mountain side?

A. No, they were not.

Q. Just where were they located? Can't you give us an idea about where you bored?

A. We made a couple of borings there in the orchard.

Q. Where does that creek come in? Right in here, does it not?

A. Here is Deep Creek.

Q. Did you make any borings down here?

A. I did, yes, sir.

Q. How many up there?

A. I made three there.

Q. Did you make any over here?

A. I made one in the ditch about here.

Q. In the ditch?

A. Yes, sir.

Q. Any on the irrigated land?

Testimony of C. M. Zediker.

A. No, sir.

Q. Now, the discharge from there spreads out fan shape, does it not?

A. It does.

Q. In other words, it puts a little different feature on the country than you would find down below the swamps for example, does it not?

A. It does at that point. It would be a different character of soil than the lands lying immediately below the swamp, but not the lands lying along the Spring Coulee ditch below the swamp and along the ditch line of Bennett and Heizman canal.

Q. The well you referred to in your testimony is that the well on Heizman's place just across the line?

A. Well, I presume it is.

Q. Did you ever investigate below the surface of the soils as to the alfalfa roots?

A. I did not.

Q. I do not mean on his place, but I mean in general.

A. Sir, oh, I have not.

Q. You know alfalfa roots have been known to grow down eighty feet to water, do you not?

A. I know that; I also know in the Okanogan country at Brewster on the same character of soil that we had a spring there and we had a creek running through the place and the land in question was not over eight feet above the creek, and we could hardly put enough water on the land to grow three crops.

Mr. BURR: That will do, Mr. Zediker.

Mr. SMITH: That is all.

WITNESS EXCUSED.

Testimony of A. P. Wheeler.

A. P. WHEELER, a witness called on behalf of the defendant, having been first duly sworn, testified as follows:

DIRECT EXAMINATION.

By Mr. SMITH:

Q. Your name is A. P. Wheeler?

A. Yes, sir.

Q. Where do you live?

A. Conconully, Okanogan County.

Q. How old are you?

A. Forty-three.

Q. What is your business or profession?

A. Civil engineer.

Q. How long have you been engaged in civil engineering?

A. About thirty-three years.

Q. Have you ever had any experience in connection with irrigation work?

A. Yes, sir.

Q. Where?

A. In Lewiston County, Montana, as superintendent of the Dearborn Canal Company, a corporation, later taken over by the State and identified with both corporations and the State of Montana.

Q. What were your duties on that canal?

A. As superintendent for the corporation for about nine years consecutively.

Q. Superintending what?

A. The maintenance, delivery and sale of water, delivery of the water and collection.

Testimony of A. P. Wheeler.

Q. And have you had some experience in the Okanogan country also?

A. Yes, sir, a limited experience there.

Q. Do you know what the miner's inch of water is, four or six inch pressure?

A. Yes, sir.

Q. Did you ever make any physical examination of the land of Mr. Bennett's involved in this case?

A. Yes, sir; I did.

Q. When did you make that examination and with whom did you make it?

A. On, I believe, the 4th day of April of this year, I made an examination of the character of the soil with Mr. Bennett.

Q. Tell the Court what that examination consisted of, what you found?

A. The first test pit was made in the orchard. The first two had a depth of between thirty-six and forty-four one hundredths inches, and about six inches of soil; we found about six to ten inches of soil on top with a strata of from twelve to twenty-four inches of gravel underlying that, and in one place we did not succeed in getting through the gravel—while the next place in the orchard we got through the gravel and encountered a sandy loam underlying a strata of gravel. Then we proceeded east and north and tested the northern portion of the ranch across it to the easterly boundary, and we found on an average of about twelve inches I believe, of loam through the central portion of the northerly part of the ranch, of the northerly forty underlaid in that

Testimony of A. P. Wheeler.

place with a strata of from twelve to twenty inches of sand and gravel intermixed of decomposed granite and quartzite. Then along the easterly boundary, which is in alfalfa at the present time, several test pits were attempted there, but the ground being composed of large wash boulders made it very difficult to get holes down to any considerable depth, and several holes were abandoned after going down some thirty inches or two feet on account of striking large boulders, and we proceeded down to a point just at the northerly edge of what is known as the swamp.

Q. Which edge?

A. A low marshy section, and in the edge of the tules, or cat-tails, as they are locally known, I sank a test pit there between four and five feet, and I found about fifteen inches of loam on the surface, and thirty-four inches, I believe, of sand and gravel underlying the loam, very loose, and coarser gravel underlying that down to the bottom of the hole.

Q. Did you preserve any specimens of any of those diggings down there?

A. Samples from those holes?

Q. Yes.

A. No, sir, I didn't.

Q. Well, proceed with your work.

A. Then on further south—in proceeding south from that point and west I attempted to sample the westerly side where the surface is covered quite thickly with large boulder wash; I found it impracticable to dig any test pits along that westerly side on account of the heavy

Testimony of A. P. Wheeler.

boulder wash. We did sink, however, in all, eight holes down to a depth of from three to five feet altogether, that I made a note of their character of soil. Then going down to the southerly boundary in about the center of the Bennett ranch, just over the fence, or the boundary line, as I supposed it to be, Mr. Heizman had a well that he was digging for water, I suppose for pumping purposes, which was down at a depth at that time of about thirty feet, and noted the character of the soil all the way down to the bottom of that to a depth of twenty feet. We dug no further test pits otherwise than to come back up the grain from that point north, just dug back to the tule swamp.

Q. Does that conclude your investigation?

A. Yes, sir, I think that is all the investigation we made.

Q. Well, Mr. Wheeler, does the kind of soil and sub-soil you found on the Bennett place retain water, or does water run through it rapidly?

A. You refer to the strata of loose gravel and sand?

Q. What I am trying to get at now is what you found there on this place.

A. It was quite porous. All of the northern part of the ranch was underlaid with very porous strata.

The COURT: I don't care for you to repeat the description. Whether it will take much or little water is the question.

A. Taking—considering the whole?

Q. Yes.

A. It will take more than the usual amount of water for land situated in a place as that is situated.

Testimony of A. P. Wheeler.

Q. Now, in your opinion, and from all your experience, and from whatever source derived, technical or actual, tell the Court what, in your opinion, should be the amount of water received by Mr. Bennett to grow the kind of crops that he is growing there, to the best advantage, the water delivered at his land.

A. On how much land?

Q. Well, say per acre.

The COURT: How much per acre?

A. Am I to consider the whole irrigated acreage?

The COURT: The part under irrigation, excluding the swamp.

A. May I be permitted to ask how many acres there are?

The COURT: You can put it in so many acres, feet, or miner's inch. Which ever way you put it makes no difference how many acres there are.

A. The reason for asking that is that it would be impossible to irrigate ten acres with ten inches. A hundred acres might be irrigated with a hundred inches; the amount of water would depend upon the area, the acreage.

The COURT: Well, there are about fifty or sixty acres, then.

Q. Well, we will say sixty-two acres.

A. I would judge that that soil would require for the proper irrigation of alfalfa and timothy, which I found growing on there, at least one miner's inch to the acre.

Q. Under what pressure, four or six inch?

Testimony of A. P. Wheeler.

A. Under six inch pressure.

Q. That volume at the land?

A. At the land.

CROSS EXAMINATION.

By Mr. BURR:

Q. Mr. Wheeler, were these borings that you made the same as were made by the witnesses at first who were examined?

A. Beg pardon?

Q. The borings you made by your independent investigation or were they made the same as the borings that were made by the other witnesses?

A. I dug the holes myself. I didn't see any signs of any other holes having been dug there.

Q. Now, as I understand your testimony—I am not sure whether I am getting it right or not, very briefly: You dug in the orchard?

A. Yes, sir.

Q. Then you went across here, and then down this side

A. Yes, sir.

Q. Keeping fairly well toward the ditch?

A. Over on this side, along here is, if I am not mistaken, is the alfalfa—that is about four or five feet higher. Is this the swamp?

Q. Yes.

A. And we dug test pits all the way around here.

Q. Around the boundary?

A. No, not around the boundary, but across it so as to take a general sampling of it, and so some over here,

Testimony of A. P. Wheeler.

and came back and some over here and then went right down here at the edge of the swamp; then proceeding along down here to this other, this rocky ground, then over into the field down here to this point, and came back up along this side, and over to this, up to the swamp, back right through the swamp.

Q. How many borings all together?

A. Why, that we succeeded in sinking down to a good reasonable depth of from three to five feet, eight holes.

Q. Eight holes?

A. Yes, other short ones that we failed to get down, that I made no mention of, quite a good many of those.

Q. How many did you put on this bench over on this side of the orchard, if you recall, the bench to the south-east of the orchard, I mean—it is practically the east portion of the land, above the swamp, that I refer to.

A. How many?

Q. How many did you put on that bench?

A. The bench emerges from a flat so I am unable to answer that definitely; but on the bench proper one hole down and several attempts which were too rocky to get down. A little higher up we succeeded in getting two holes well down. A little further north, you might call it the bench, or where the bench emerges in the valley bottom.

Q. Then, did you put any, some borings on that rocky which is better shown on here, this portion?

A. I failed; I tried to.

Q. Now, on this rather high land to the west of the

Testimony of F. C. Paine.

marsh near the rocky land but below the little ditch, did you put some borings there?

A. To the west?

Q. To the west of the swamp; I mean the bench along there that slopes down quite rapidly?

A. That is where the hay stacks begin?

Q. Yes.

A. That is just what I referred to. We tried to sink some there, but this was too rocky.

Q. You didn't attempt any in this rocky land proper?

A. More than to find what little soil there was, to find and determine the character of it.

Mr. BURR: I think that is all.

Mr. SMITH: That is all, Mr. Wheeler.

Mr. SMITH: Our stipulation might well go, might be construed to include titles to our land; I don't believe it did and in that case I shall have to make proof unless we can stipulate we are also owners of the land.

Mr. BURR: I will stipulate in reference to that.

F. C. PAINE, a witness called on behalf of the defendant, having been first duly sworn, testified as follows:

DIRECT EXAMINATION.

By Mr. Smith:

Q. Is your name F. C. Paine?

A. It is.

Q. Where do you live?

A. I live about a mile and a half above Okanogan, along Salmon creek.

Q. The town of Okanogan?

Testimony of F. C. Paine.

A. Yes, sir; the town of Okanogan.

Q. Between the town of Okanogan and where Mr. Bennett lives?

A. Yes, sir. I live about two miles from Bennett's place.

Q. How old are you?

A. I am about thirty-seven years old.

Q. What is your business?

A. I am a rancher at present. Previous to that I was engaged in engineering work, mining and civil engineering work for about nine years.

Q. Were you some time Water Commissioner for Okanogan County?

A. I was Water Commissioner for Salmon creek two seasons, 1909 and 1910.

Q. What experience have you had, Mr. Paine, at irrigation engineering, and what have you had at irrigating and spreading water?

A. Well, as to the spreading of water I had considerable experience in 1902 with the Bay City Water Company in California measuring water. Since then I have had more or less to do with miner's property as to the actual spreading of the water during the last year I have lived on my ranch where I irrigated it last year.

Q. Was that your first experience at actual irrigating yourself?

A. That is my first experience in actual spreading the water. I was raised on a farm, however.

Q. Have you made any study of the duty of water?

A. Yes, sir.

Testimony of F. C. Paine.

Q. You know where the Bennett land is, I believe you say?

A. Yes, sir.

Q. Did you make an examination of that land a few days ago with a view to ascertain the soil, sub-soil over the ranch?

A. I think it was in May, 1907.

The COURT: This testimony is largely cumulative; I do not think it is necessary to go into it.

Mr. SMITH: There is one additional thing. I think Mr. Paine has sample.

The COURT: I do not care anything for that. You could probably find forty samples on forty acre tracts.

Q. To cut it short, from your experience, from every source, what in your opinion is necessary for Mr. Bennett to have for the irrigation of his land, at his land, for the production of the kind of crops they were growing there, to the best advantage?

A. From my experience—from my experience with my alfalfa, I should judge it would take considerably more water than I have in order to raise alfalfa successfully—that is, my place is only a small percentage of it in alfalfa and the rest is in young trees. The greater part of the water is used on the alfalfa—that is, more water per acre is used for alfalfa than on the trees—and I should judge it would require about double what I have to raise alfalfa successfully.

Q. That would be about six acre feet?

A. In that neighborhood. Probably it would be five acre feet on the land.

Testimony of F. C. Paine.

Q. A miner's inch, or something like that?

A. Yes.

Q. How do you manage your irrigation? You and Mr. Shaw irrigate together, do you?

A. Yes, sir.

Q. You bought a part of his place?

A. Yes, sir.

Q. Tell the Court how you and Mr. Shaw manage your irrigation then.

A. We have about thirty-four and one-half acres for water there and when one irrigates he takes all the water and irrigates until he gets through with it; then the other takes it, he irrigates until he gets his land irrigated; we rotate backward and forward.

Mr. SMITH: I think you may cross examine.

CROSS EXAMINATION.

By Mr. BURR:

Q. Mr. Paine, did you take any measurement of the water when you were water commissioner past Mr. Bennett's place?

A. No, sir.

Q. Just measured the head of the Spring Coulee ditch?

A. Head of the Spring Coulee ditch is the only measurement that I made.

Q. You had no information other than through that course?

A. No, sir.

Q. If there was any water loss between the two places that has been described, in the course of that

Testimony of Frank Carpenter.

ditch, from about the head of Mr. Bennett's place to near the foot of the place where would that water go—if there was a leakage described there where would that go?

A. I think it would be impossible to tell where it would go. The general formation of that country it usually drops down out of sight, and that is all we know about it. Of course there are places where it goes down and comes up.

Q. Doesn't that go down on Mr. Bennett's ranch?

A. It might, or might not.

Q. Doesn't that water escape down on Mr. Bennett's ranch?

A. It might not.

Q. In the investigations on Mr. Bennett's farm, the investigations that you made, did you find any gumbo that you described?

A. I didn't see anything that could be called gumbo, unless it was something that came out of the Heizman well, there is a kind of blue sticky mud—I wouldn't call it a clay; it is more of a lake deposit, something of that kind, sediment.

Mr. BURR: That is all, Mr. Paine.

WITNESS EXCUSED.

Mr. BURR: I am willing to stipulate that there has been a marsh at the present site since the country was taken up approximately twenty years ago.

FRANK CARPENTER, a witness called on behalf of the defendant, having been first duly sworn, testified as follows:

Testimony of Frank Carpenter.

DIRECT EXAMINATION.

By Mr. SMITH:

Q. What are your initials, Mr. Carpenter?

A. D. F. Carpenter.

Q. Where do you live?

A. Riverside.

Q. That is in Okanogan County?

A. Okanogan County.

Q. Do you know where the Bennett land is?

A. I do.

Q. And is there a ranch north of it and adjoins it on the north that is known as the Carpenter ranch?

A. My mother's ranch.

Q. Did you live on that ranch for a number of years?

A. Yes, sir.

Q. Were you born and raised there

A. No.

Q. How many years did you live on that ranch?

A. About sixteen or seventeen years.

Q. Did you do any irrigating on that ranch?

A. I did.

Q. By the way, you folks and Mr. Bennett and some other people who took out the Spring Coulee ditch originally, were you?

A. We were, yes, sir.

Q. For how many years have you been irrigating?

A. Well, I should say about fifteen years.

Q. And that consists in the actual work of irrigation, spreading the water?

A. Well, off and on, yes.

Testimony of Frank Carpenter.

Q. Do you know what a miner's inch of water is under six inches pressure—that is about volume?

A. That is a square inch under a four or six inch pressure.

Q. Well, it is under six inch pressure?

A. Six inch.

Q. And from your experience of irrigation you would know about the volume?

A. Yes, sir.

Q. Of an inch of water. Now where has your fifteen years of irrigation been practiced?

A. Practically on the place adjoining Mr. Bennett's on the north.

Q. How long have you known Mr. Bennett?

A. Well, I should say about eight years.

Q. Ever since he came to the country?

A. Ever since he came and bought the ranch.

Q. What kind of a farmer is Mr. Bennett—that is, is he a good farmer or not?

A. Well, I consider him pretty fair.

Q. What kind of crops has he been raising there, that is as to quality, whether good crops or poor ones?

A. He has been raising pretty good crops, consists of alfalfa principally.

Q. Mr. Carpenter, did you ever see on Mr. Bennett's place any indication of what you thought or took to be too much water being used?

A. I did not.

Q. Would you say to the Court, in your opinion, Mr. Bennett has made a reasonable and judicious use of the water?

Testimony of Frank Carpenter.

A. I will.

Q. From your knowledge of Mr. Bennett's land and working on the ranch adjoining over on the north, how much water do you think would be necessary per acre to produce alfalfa, timothy and clover to the best advantage on Mr. Bennett's place?

A. Well, it would take a miner's inch to the acre.

Q. Under four or six inch pressure?

A. Under six inch pressure.

Q. Where would you want that water, at the land or up at the spillway?

A. Right at the land.

Q. Do you know the swamp on Mr. Bennett's place?

A. Yes, sir.

Q. How long have you known of that swamp?

A. Well, for twenty-three years.

Q. It was there when you got there?

A. It was there when I got there, yes, sir.

Q. And was the Bennett place taken up, as we call it, homesteaded or settled on by anyone at that time?

A. It was.

Q. Mr. Smyth?

A. Mr. Smyth.

Q. Since you have known about that has it increased any in size, to your knowledge—can you say it has increased any in size?

A. It has not.

Q. Have you any information or opinion as to whether it has decreased?

A. Well, I do not think it has much.

Testimony of Frank Carpenter.

Q. It has been staying about the same?

A. About the same; sometimes it is under water, and sometimes it is very near dry.

Q. Have you ever had occasion to pay any attention to the sub-soil on Mr. Bennett's land, and which is up there near your mother's and your mother's property, the Carpenter ranch?

A. Well, underneath where they set the fence poles, put a fence across, there would be probably eight or ten inches good soil black loam; underneath the gravel.

Q. Now, did you raise alfalfa in that kind of soil there?

A. Yes, sir.

Q. What was your observation on your place as to whether it took a lot of water to irrigate that alfalfa or not?

A. It took lots of it.

Q. And what was your observation as to whether your water got away from you rapidly or not?

A. Well, there is part of the land that was kind of sloping, it would take more water of course than that which was level.

Q. I am trying to get at specially whether it seeps into the ground rapidly and got away from you?

A. Yes, it did in places.

Q. Do you know what we have been referring to here from time to time as the rocky part of Mr. Bennett's land?

A. I do.

Q. Did you ever see him irrigating that?

A. I did.

Testimony of Frank Carpenter.

Q. When did you first see him irrigating that?

A. That was about five years ago.

Q. And what was he irrigating then on this land?

A. He was irrigating his alfalfa.

Q. I mean on the rocky part.

A. He was there irrigating alfalfa just below the rocky part, right down through the rocky part to the alfalfa. The rocky part was also irrigated to get the water to the alfalfa below.

Q. What was growing on the rock patch in the way of grass

A. Well, there was wild grass, clover, timothy and some alfalfa just occasionally.

Q. What did Mr. Bennett use that ground for, to your knowledge?

A. Well, he mowed off it, and pastured the balance.

Q. How many years do you know of his mowing it?

A. Well, he mowed it, the lower portion of it, every year.

Q. I am referring now to the rock patch which is under the road.

A. A portion of the rock patch last year, it was all mowed, rock patch all around amongst the rocks.

Q. Well, what are the facts as to whether he used that a good deal for pasture?

A. He pastured it when the hay was cut.

Q. Mr. Bennett was in the cattle business there for a good many years?

A. He was.

Q. And turned his cattle in there in the fall?

Testimony of Frank Carpenter.

A. Yes, sir.

Q. How long has it been since you lived in the immediate vicinity of Mr. Bennett's place?

A. It has been about seven or eight years.

Mr. SMITH: That is all, I believe.

(Whereupon Court adjourned until Saturday, June 1st, at 10 o'clock a. m.).

Saturday, June 1st, 10 A. M.

FRANK CARPENTER resumed the stand for
CROSS-EXAMINATION.

By Mr. BURR:

Q. Mr. Carpenter, you testified as to how much water was necessary on Mr. Bennett's property yesterday. Did you ever take any measurements of water yourself?

A. Not much, no.

Q. Mr. Carpenter, the land that you are farming is in what kind of crop?

A. In alfalfa and clover.

Q. Almost all alfalfa and clover, is it?

A. Yes, sir, and timothy.

Q. Is that land level?

A. It is principally level, yes.

Q. Do you think it is about in the average condition for alfalfa?

A. Pretty fair shape.

Q. Would you say that the land is in as good condition as Mr. Bennett's?

A. Well, yes.

Testimony of Frank Carpenter.

Q. I was referring to the Carpenter place—I think it is in the name of your mother, is it not?

A. Yes, sir.

Q. That is in alfalfa, is it, largely, and clover?

A. Yes, alfalfa, clover and timothy.

Q. That is leveled for cultivation?

A. Yes, sir; that is what I was referring to.

Q. I am asking you some questions in regard to the other property up there near Mr. Bennett's—that is not what you would say about the average condition of the alfalfa of the country?

A. Yes, I believe.

Q. You think it is as good as the average?

A. Yes, sir.

Q. You think it is any better?

A. Well, it is just as good anyway.

Q. Is Mr. Bennett's land in forage crop in as good condition as yours?

A. Yes, sir.

Q. As a matter of fact, isn't the lower end of Mr. Bennett's place very much inferior to yours?

A. Well, the lower portion may be.

Q. It is not very inferior to yours in cultivation—that is, the Carpenter ranch?

A. Well, the southern portion, yes.

Q. Isn't it, as a matter of fact, very, very rough and got to put in an awful lot of water to hit the high places in order to make it profitable?

A. Well, maybe in some portions of it, it is pretty rough.

Testimony of Frank Carpenter.

Q. Is there not fifteen or twenty acres of it in that condition down below the swamp?

A. No, I do not think it.

Q. Mr. Carpenter, how long have you lived in that country?

A. In Okanogan?

Q. Yes, in the Spring Coulee district?

A. Came to Okanogan in 1888.

Q. And Mr. Bennett's principal business was irrigating at that time?

A. He was.

Q. And he was irrigating that same land?

A. No, not that same piece; above there.

Mr. BURR: That is all.

Mr. SMITH: That is all.

Witness excused.

The COURT: The testimony thus far refers to the amount of water necessary at the point where it enters the land. I am of the opinion it will be impracticable until finally decreed to make the water at that point. It seems to me it will be practically at the intake. Whatever the allowance is you will have to account for in the testimony.

Mr. BURR: I think we can probably stipulate that.

The COURT: I just want to have the testimony in such condition that a decree can be entered so that the water can be measured at the proper place.

Mr. BURR: I think we can stipulate that so that it will be satisfactory, Mr. Smith.

Mr. SMITH: Yes, I think so.

Testimony of Byron Munson.

BYRON MUNSON, a witness called in behalf of the defendant, after being first duly sworn, testified as follows:

DIRECT EXAMINATION.

By Mr. SMITH:

Q. Your name is Byron Munson?

A. Yes, sir.

Q. How old are you?

A. Thirty-six years old.

Q. Where do you live?

A. Okanogan County.

Q. Where with reference to Mr. Bennett's place?

A. Two miles below Mr. Bennett.

Q. There is just one ranch that intervenes Mr. Bennett and yourself?

A. Yes, sir.

Q. How long have you lived on that ranch where you now live?

A. Twenty-four years.

Q. Do you practice irrigation on that ranch?

A. Yes, sir.

Q. And has this ranch of yours below Mr. Bennett an extension on down to Spring Coulee?

A. Yes, sir.

Q. How long have you been practicing irrigation on your place?

A. Twenty-four years.

Q. And have you been actually irrigating the ground yourself for that long?

A. Yes, sir.

Testimony of Byron Munson.

Q. And how does your land compare with Mr. Bennett's, that is as to soil and climatic conditions, and that sort of thing?

A. Why, it is just about the same.

Q. As to the porous condition, do you think there is any difference—that Mr. Bennett's is more porous or yours more porous?

A. No, I think they are just about the same.

Q. What have you been irrigating for the last twenty-four years?

A. Alfalfa.

Q. Do you know what a miner's inch of water is?

A. Yes, sir.

Q. How long have you been acquainted with Mr. Bennett's land?

A. About eight years, I think.

Q. Well, I don't refer particularly since he has owned it, but that tract of land I am asking you, you have known it ever since you have been there?

A. I have known it ever since I have been there, for twenty-four years.

Q. Well, from your experience as a practical irrigator on your land, land similar to Mr. Bennett's, what in your opinion is the volume of water necessary for Mr. Bennett to have for the growing of alfalfa and other hay such as he is growing there, delivered on the land?

A. Well, the least that I could—would be a miner's inch measured out on the land.

Q. Under what pressure?

Testimony of Byron Munson.

A. Six inch pressure.

Q. Do you believe that that amount is reasonably necessary for Mr. Bennett to have on his land for the growing and maturing of his crops to the best advantage?

A. Well, I believe he would raise more hay and better hay if he had an inch and a quarter on that gravelly soil.

Q. There is a swamp on his place, Mr. Munson, I believe?

A. Yes, sir.

Q. How long has that swamp been there to your knowledge?

A. Well, the first time I ever seen that swamp——

The COURT: It was admitted it has always been there so far as this case is concerned.

Mr. SMITH: Well, if that is the understanding of it, I will abandon that.

Mr. SMITH: Q. Do you know a piece of ground on Mr. Bennett's place referred to as the rock patch?

A. Yes, sir.

Q. Do you know of that being irrigated?

A. Yes, sir.

Q. When do you recall first seeing that irrigated?

A. It has been about seven years.

Q. Are you acquainted with land generally around in that country and under the Okanogan project?

A. Why, I have never been very much on the Okanogan project, no, but I have been over the land some.

Q. Is that land any more rocky than a great deal

Testimony of Byron Munson.

of other land in that country for which the Government has appropriated water, and has been taken up and being irrigated—rocks cleared off?

A. No, I do not know as it is.

Q. In your opinion is that a valuable piece of land? Can the rocks be taken off?

A. Yes, sir.

Q. Have you ever had any occasion to observe the loss of water in transmission through the ditches from that Spring Coulee ditch?

A. Yes, sir.

Q. I wish you would tell the Court what you have observed in that regard.

A. Why, I had a stream of water running in there, irrigating ditches running down through the coulee, had to keep one of my flumes, keep it from drying up, a small stream and Mr. Mennen measured it and he says there was six or eight inches of water in it, and it evaporated.

Q. What is the fact as to whether that ground through the coulee there, Mr. Bennett's place, Heizman's and yours is porous and takes lots of water?

A. Yes.

Q. Have you never examined the soil on Mr. Bennett's place?

A. Yes, sir.

Q. What did you find?

A. Why, I found on the top black loam and underneath that a layer of a kind of granite gravel.

The COURT: That has been gone into quite fully,

Testimony of Byron Munson.

and I don't know whether the Government is going to contradict it or not.

Mr. SMITH: I imagine they won't.

The COURT: Has the land been irrigated during those years?

A. Over in the Meadow Valley irrigated two different seasons.

The COURT: On your own place there below Mr. Bennett's?

A. Thirty-five or forty acres, I should judge.

CROSS-EXAMINATION.

By Mr. BURR:

Q. You testified in regard to the amount of water in your judgment is necessary—did you ever measure the water?

A. I do not know as I have.

Q. Are you familiar with the property purchased by Mr. Lee Cook?

A. Yes, sir.

Q. What kind of land is that?

A. Why, it is porous, gravelly soil.

Q. Did you sell that property?

A. Yes, sir.

Q. Did you sell him the water right?

A. Yes, sir.

Q. Didn't you sell him a water right of three-fourths of a miner's inch?

A. Yes, sir.

Q. You testified a portion of Mr. Bennett's ranch

Testimony of Byron Munson.

was put in about seven years ago—when was the rest of it put in—it was earlier than that, wasn't it?

A. Just this rock patch, I am speaking of.

Q. How much earlier was the rest of it put in?

A. Well, I couldn't say exactly, about fifteen years, I think.

Q. About fifteen years before; seven years ago or fifteen all together?

A. Fifteen all together.

Q. What do you recall about first seeing that rock patch irrigated—was about seven years ago?

A. It is about seven years ago.

Q. How do you recall it was just seven years?

A. Why, I was there working helping Mr. Bennett put up a crop of hay.

Mr. BURR: That is all.

RE-DIRECT EXAMINATION.

By Mr. SMITH:

Q. You were asked something about selling a piece of land, of your land, to Lee Cook?

A. Yes, sir.

Q. And a water right for three-fourths of a miner's inch—was that under six inch pressure or was that—

A. I think it was, yes, sir.

Q. What was that land sold for—that is what kind of a crop?

A. He has got an orchard on it now; he raises some stuff.

Q. Fruit land?

A. Yes, sir.

Testimony of Harry Folmsbee.

Q. Has the water ever been measured to him?

A. No, sir.

Mr. SMITH: That is all.

RE-CROSS-EXAMINATION.

By Mr. BURR:

Q. He is raising something else besides orchard there, is he not?

A. He is raising some stuff between trees.

Q. What is it?

A. Corn, growing stuff, such as that.

Q. That takes considerable water, does it not?

A. It does.

Q. Young trees take considerable water too?

A. They do not take as much water as after they get to bearing.

Q. He is not suffering for water there, is he, Mr. Cook?

A. Well, the water has never been measured to him there yet as I know of.

Witness excused.

Testimony of Harry Folmsbee.

HARRY FOLMSBEE, called as a witness on behalf of the defendant, having been first duly sworn, testified as follows:

DIRECT EXAMINATION.

By Mr. SMITH:

Q. Your name is Folmsbee?

A. It is.

Q. Where do you live?

A. In Okanogan.

Testimony of Harry Folmsbee.

Q. Okanogan town?

A. Yes, sir.

Q. How old are you?

A. Thirty-nine years old.

Q. Have you ever been engaged in the practice of irrigation?

A. I have.

Q. For how many years have you been irrigating—that is, doing the actual work yourself with your shovel?

A. Practically all my life.

Q. When and where was the first irrigation that you did?

A. Colorado.

Q. What part?

A. Around Greeley and Eaton.

Q. What were you irrigating there?

A. Alfalfa and potatoes.

Q. How many years did you irrigate there?

A. Three different summers.

Q. Was your water measured to you?

A. It was.

Q. What volume of water did you use?

A. A miner's inch.

Q. Under what pressure?

A. Six inch pressure.

Q. That is a miner's inch to the acre?

A. Yes.

Q. Where did you next irrigate?

A. In Wyoming.

Q. What part?

Testimony of Harry Folmsbee.

A. Well, it was right on the line between Wyoming and Nebraska.

Q. What were you irrigating there?

A. Alfalfa exclusively.

Q. How many years did you irrigate at that point?

A. Well, most of the time for fifteen years.

Q. Was your water measured to you there?

A. It was.

Q. What volume of water did you use?

A. A miner's inch.

Q. To the acre?

A. To the acre; yes, sir.

Q. And under what pressure?

A. Six inch pressure.

Q. Where did you next do irrigating?

A. I irrigated one summer at Boise, Idaho.

Q. Was your water measured to you there?

A. It was.

Q. What were you irrigating?

A. Alfalfa and clover.

Q. What volume of water did you use at that point?

A. A miner's inch to the acre.

Q. Under what pressure?

A. Six inch pressure.

Q. Where next did you do any irrigating?

A. At Wenatchee.

Q. How long did you irrigate at Wenatchee?

A. Three years.

Q. What were you irrigating?

A. Alfalfa.

Testimony of Harry Folmsbee.

Q. From what ditch did you get water?

A. Read ditch.

Q. Was your water measured to you?

A. It was.

Q. How much water did you use?

A. We was supposed to get an inch to the acre.

Q. Under what pressure?

A. Six inch pressure?

Q. Where did you do any more, any additional irrigating, after you left Wenatchee?

A. Well, I done some irrigating at Okanogan.

Q. It was near Okanogan town?

A. Yes, sir.

Q. How far is that from Mr. Bennett's land?

A. Well, it is about two miles and a half.

Q. Now, do you think, Mr. Folmsbee, from these years of actual irrigating you know how to irrigate alfalfa?

A. I do.

Q. Have you ever made any examination of Mr. Bennett's land?

A. I have.

Q. Did you dig into the soil?

A. I did.

Q. About how many places did you dig in?

A. Well, between ten and fifteen places.

Q. Have you been in the court room?

Mr. BURR: We are not going to contravert the evidence you have already put in on the subject of the sub-soil there.

Testimony of Harry Folmsbee.

Mr. SMITH: Q. Mr. Folmsbee, now, from your experience as a practical irrigator—before I ask this question I want to ask you one more. Now, these years that you have been telling us about irrigating, you have been actually irrigating yourself?

A. I have, yes, sir.

Q. Now, these years of experience and your knowledge of Mr. Bennett's soil, and his land and of the climatic conditions that prevail up there, and other surrounding conditions, what in your opinion is reasonably necessary for Mr. Bennett to produce the kind of crop that he is raising, alfalfa, timothy, and that class of forage, to the best advantage?

A. To the best advantage

Q. Yes.

A. Well, my experience I doubt whether he could irrigate his ranch successfully with an inch to the acre.

Q. Well, what in your opinion, ought he to have?

The COURT: That is all he claims in his answer.

A. As I understand.

Q. I think that in so far as the proof may vary from the pleadings I will ask leave to amend to conform to the proof.

The COURT: Well, he may answer.

Q. How much, in your opinion, ought he to have per acre?

A. Well, he could raise more hay if he could have an inch and a half to the acre than he would if he had an inch.

Q. Now, is his land all alike there—that is, in making

Testimony of Harry Folmsbee.

this answer I want to find out whether there is some of his land that requires more and some less?

A. There are.

Q. And in making your answer have you average it up?

A. Yes, sir.

Q. Do you know the piece of rocky ground that has been referred to on Mr. Bennett's place?

A. I do.

Q. How long have you lived there in the Okanogan country?

A. Six years.

Q. Are you familiar with the land around in that country generally?

A. I am.

Q. And with the character of lands that the Government is irrigating?

A. Yes, sir.

Q. And others are irrigating between?

A. Yes, sir.

Q. Is this rocky patch on Mr. Bennett's place any more rocky than other lands that the Government is watering for other people around?

A. It is not.

Q. Is it not, in your opinion, a valuable piece of ground?

A. Yes, sir.

Q. For fruit and alfalfa?

A. Yes, sir.

Q. You said something of Okanogan; how many years did you irrigate there, or try to irrigate?

Testimony of Harry Folmsbee.

A. Six years ago this summer I helped Mr. Collins irrigate there at Okanogan when he had plenty of water; he irrigated his whole ranch.

Q. That was before the Government came in?

A. Yes, sir, and since that I have helped him. A year ago last summer I helped him to irrigate when the water was measured out to him, and we simply had to quit.

Q. How much water was he getting then?

A. Well, he was only getting, I believe at that time, twelve acre feet—that is, three acre feet for twelve acres.

Q. Well, what experience did you have with trying to irrigate with three acre feet?

A. Why, we could not irrigate at all.

Q. What were you trying to irrigate?

A. Alfalfa.

Q. What did you finally do there?

A. Quit.

Q. Gave it up as a bad job?

A. Yes, sir.

Q. Was the reason you quit because of your lack of water?

A. Yes, sir.

Q. This quantity of water that you think Mr. Bennett should have for irrigating, do you think that he should have that on the land or at some point of diversion above?

A. I think he should have it on the land.

Q. And in the years of irrigation you referred to previously and the volume of water that you used, was that

Testimony of Harry Folmsbee.

on the land, or at some point of diversion away from it?

A. Well in different localities that I have irrigated in it was measured differently. Under some ditches it has been measured on the land, or at the point of diversion at the land. Others at the point of diversion from the main ditch.

Q. Had it both ways?

A. Yes, sir.

Mr. SMITH: Cross examine.

CROSS EXAMINATION.

By Mr. BURR:

Q. Mr. Folmsbee, when were you in Greeley, Colorado?

A. I was in Greeley, Colorado, in 1883.

Q. What were you raising there?

A. Raising alfalfa and potatoes.

Q. How large was your ranch?

A. Forty acres.

Q. They gave you an inch to the acre?

A. They did.

Q. Was that continuous flow?

A. Well, at that time—then, we had a shortage of water and we had to divide up; it was not a continual flow.

Q. You rotated?

A. Yes, sir.

Q. Did they have a man to measure it there for you?

A. They did.

Q. Do you know exactly what you received in acre

Testimony of Harry Folmsbee.

feet—you could not get it in inches because the time was broken up—do you know what it was?

A. Well, we was supposed to get equivalent to a continuous flow of an inch to the acre.

Q. On irrigating a tract of forty acres that is the more economical way to receive water, isn't it?

A. Yes, sir, it is undoubtedly.

Q. You get a double head or treble head for a short time?

A. Yes, sir.

Q. You do not know the reading in acre feet on that ranch as to whether or not they had the exact amount to be delivered under the rotation system?

A. No, sir, I do not.

Q. Now when were you in Boise, Mr. Folmsbee—when were you in the Boise country?

A. I was in the Boise country in the year of 1900.

Q. Did you know that in the Boise country it is unlawful to appropriate as much as an inch to the acre?

A. No, sir.

Q. It is.

A. Well, they were supposed to turn out an inch to the acre at the time I was there.

Q. The maximum upon the most porous soil in the State of Idaho is seven foot to the seventy acres—weren't you familiar with that law?

A. No, sir.

Q. Are you familiar with the annual rainfall, Mr. Folmsbee, at Boise?

A. I am not, no, sir.

Testimony of Harry Folmsbee.

Q. Are you familiar with the rainfall in Colorado?

A. No, sir.

Q. When were you in Wenatchee?

A. In Wenatchee?

Q. Yes.

A. I came to Wenatchee the fall of 1900, the fall of 1900.

Q. What ranch did you irrigate there?

A. I irrigated the ranch that I had; it was four miles above Malaga.

Q. What name do they call that ranch by—is there any particular name?

A. No, sir; I bought it from the railroad company.

Q. How many acres of land did you irrigate in Wenatchee?

A. I have sixty acres under cultivation.

Q. Now, for that sixty acres did you receive a continuous flow?

A. We did when we could get it. Some years the water was short, and some years we had plenty.

Q. Some years you rotated and you had double the amount for a short time?

A. We always rotated.

Q. Always rotated?

A. Yes, sir.

Q. Never did use a continuous flow?

A. No, sir.

Q. Do you know actually how much water you received, the amount measured, in miner's inches?

Testimony of Harry Folmsbee.

A. As I said before we were supposed to get equivalent to our acre feet, only get it all in a bunch.

Mr. SMITH: You mean acre feet or miner's inch?

A. Miner's inch; yes, sir.

Mr. BURR: Q. You never saw the readings as to how much was actually delivered in acre feet?

A. No, sir; we had a man to take care of the ditch.

Q. Where did you say you irrigated in Wyoming?

A. In what is called on the chug water.

Q. Chug water?

A. Yes, sir; northeast of Cheyenne.

Q. What time were you there?

A. We moved there right on the line between Wyoming and Nebraska in the year of 1885.

Q. How long were you there?

A. About fifteen years.

Q. Are you familiar with the law in the state of Wyoming passed in 1890?

A. 1890?

Q. Providing that no allotment of water shall exceed one cubic foot per second for each seventy acres—are you familiar with that law?

A. I am not, sir. Under the ditch that we got our water from we got our miner's inch to the acre.

Q. What is the rainfall in Wyoming, if you are familiar with it?

A. I could not tell you. We paid no attention to the rainfall.

Q. Mr. Folmsbee, will you state where the pieces of land are that you say are as rocky as that rock patch?

Testimony of Harry Folmsbee.

A. As rocky?

Q. Yes, sir.

A. Well.

Q. I have been over the project considerably and I haven't seen any such.

A. You haven't seen such?

Q. No—similar land on the project.

A. Well, there is a good many points and ridges that I know of that is on the project, to my opinion is a whole lot worse than that.

Q. Name one?

A. There is on Dr. Pogue's; there are places, smaller rocks, perhaps a little smaller, the rock comes right up to the top.

Q. Witnesses for the defendant have testified that that land was strewn with boulders?

A. Yes, sir.

Q. Where on Mr. Pogue's, Dr. Pogue's land, is it strewn with boulders?

A. Well, on Dr. Pogue's land, it is smaller, the rocks are smaller.

Q. In other words, you can plant trees between small rocks and boulders where you cannot get in to cultivate.

A. You have got to move them.

Q. You cannot get in and cultivate that land successfully?

A. Well, you cannot cultivate the other successfully without irrigating the rocks.

Mr. BURR: That is all.

Testimony of Harry Folmsbee.

RE-DIRECT EXAMINATION.

By Mr. SMITH:

Q. How about the Hodge's place just on down the coulee below the Bennett place for rocks?

A. Well, as I understand it, that water was not appropriated to that by the Government; it simply was irrigated before, and it is all old water.

Q. How about the rocks?

A. There are just as many there as there are on any part of Mr. Bennett's, as I had a chance to clean up a part of that land, and it costs us \$75.00 an acre to clean off the rocks.

Q. That is, you bought a part of that land?

A. Yes, sir.

Q. Was that any more rocky than the Bennett place?

A. No, sir.

Q. Any less rock?

A. Well, I couldn't say—no, it is not any less; it is about the same. There was some——

Q. How about that land just down below the town of Okanogan we call the Dooley land, that has been rocky, been grubbed, and rock fences made out of it?

A. We consider that absolutely worthless. There are a good many rocks; it is all rock.

Q. The rock has been cleaned off?

A. Yes, sir.

Q. And planted to fruit tree?

A. Yes, sir.

Q. But that whole Pogue prairie in that whole country is generally a boulder wash, is it?

Testimony of A. A. Curtiss.

A. Yes, sir. Rocky reefs run through it.

Mr. SMITH: That is all.

RE-CROSS-EXAMINATION.

By Mr. BURR:

Q. Did you know that tract of land on Dooley's property is not classed as irrigable land, is cut out?

A. I couldn't tell you as to that. I know that Mr. Bolund, if I remember right, had water for the whole tract—at least, he sold off something like forty acres of water, off of that land. I do not know whether the Government gave him that water or whether it was old water right.

Q. You do not know whether that rock portion of it is classed as irrigable land or not, do you?

A. No, sir, I do not.

Mr. BURR: That is all.

Witness excused.

A. A. CURTISS, a witness called on behalf of the defendant, having been first duly sworn, testified as follows:

DIRECT EXAMINATION.

By Mr. SMITH:

Q. Your name is A. A. Curtiss?

A. Yes, sir.

Q. Where do you live?

A. I live at Okanogan, two miles and a half below.

Q. How long have you lived there?

A. I have lived there—let's see—seven years on the present place.

Q. Are you an irrigator?

A. Yes, sir.

Testimony of A. A. Curtiss.

Q. How long have you been irrigating—that is, irrigating yourself, with shovel and hoe, whatever it takes?

A. I have been irrigating off and on, developing ranches for about sixteen or eighteen years.

Q. What have you been raising generally?

A. Alfalfa and all kinds of garden truck.

Q. Have you ever done any irrigating in Okanogan?

A. Yes, sir.

Q. You owned a ranch there?

A. Yes, sir.

Q. And do yet?

A. I do.

Q. What did you grow on that ranch?

A. I first had alfalfa.

Q. What have you got now?

A. I have got orchard.

Q. Did you sign up with the Government?

A. I did.

Q. And did you try to raise alfalfa after you signed up with the Government for three acre feet?

A. I did.

Q. What happened?

A. I fell down.

Q. Didn't get enough water on the alfalfa?

A. No.

Q. How many acres of alfalfa did you have?

A. Twelve acres.

Q. Where is that land located with reference to Mr. Bennett's?

A. It is about three miles south, I believe.

Testimony of A. A. Curtiss.

Q. How does that compare with Mr. Bennett's?

A. Well, it is a little different soil. There is three different soils on my ranch, and on the Okanogan River there is the clay soil, and there is the white ash loam, then there is sand loam soil, gravel, and the gravelly land takes more water than the ash land.

Q. You examined Mr. Bennett's while with Folmsbee?

A. I did.

Q. Which is the most porous, your land or Mr. Bennett's?

A. Well, Mr. Bennett's land is considerably more porous.

Q. How much water did you have that you tried to irrigate with on your place?

A. Well, I believe Mr. Bonstedt, the water master, told me he doubled the dose in our ditch to give us enough water, the evaporation was so much that he doubled the dose. In the Carlo-Riley ditch we could not get the water down there on account of the evaporation and the seepage, so I sold my old water right and quit.

Q. That is, you sold what the Government let you have?

A. Yes, and I installed a pumping plant for irrigation, which is now at the present time on my place.

Q. Why did you sell the old water right?

A. Well, there wasn't enough water to supply me.

Q. In other words, didn't have water enough to do you any good?

A. And not raise alfalfa at all.

Testimony of A. A. Curtiss.

Q. From your experience as a practical irrigator, and your knowledge of Mr. Bennett's land and your own and other lands in that country, and all the conditions that prevail there, what in your opinion should Mr. Bennett receive on his land for the growing of alfalfa and the crops he raises to the best advantage?

A. Well, I have studied this over in a conservative way, and I believe that about a miner's inch to the acre at his ranch would be satisfactory to irrigate with. He has on the upper part of his ranch the most peculiar soil I ever saw. We dug about thirteen holes and every four inches and in some places six inches, ten inches and twelve, and I think thirteen inches the soil is about the deepest we got, and that is underlined with a decomposed granite, and that constitutes a regular sieve, and it takes lots of water to raise alfalfa on that kind of land.

Q. I believe you have some specimens of that subsoil, have you?

A. Yes, sir.

Mr. SMITH: Would the Court care to look at this?

The COURT: If that was brought in here you will have to send a sack of dirt up to the Court of Appeals and I will not permit it. It is not necessary at all, it does not prove anything.

Mr. SMITH: That is all.

CROSS-EXAMINATION.

By Mr. BURR:

Q. Now, Mr. Curtiss, the land that you say you received a double header and a triple header, you did not get a continuous flow?

Testimony of A. A. Curtiss.

A. Why, it was eight days—about eight days on and eight days off, and the water master, I believe, told me he put in about three times the amount that we were entitled to, the neighborhood there.

Q. He put in a triple header?

Q. For one-third of the time?

A. Yes.

Q. When he gave you the triple header?

A. Yes.

Q. How long was your period?

A. Half the time from eight days on and eight days off.

Q. Well, he did not give you any more water than you were entitled to?

A. Well, he did in the ditch; he gave three times as much water as we were entitled to.

Q. Not for one-half the time, though; for one-third the time, was it not?

A. Well——

Q. In order to get it down there quicker.

A. Eight days on and eight days off.

Q. That is when you were getting a double header, was it not?

A. No; they had to do it to reach us.

Q. How long is your ditch?

A. It is—well, to my place I believe it is a little over two miles and a half.

Q. Two miles and a half?

A. Yes, sir, we had a very sandy ditch.

Q. A large amount of this got away?

Testimony of A. A. Curtiss.

A. Yes, it was quite a loss in the ditch of water seepage.

Q. Where was the point of measurement? Up where the water was turned in?

A. Right at old Okanogan, what is called Alma, right above Okanogan.

Q. It was not measured to you at the land, was it?

A. Oh, no.

Q. You do not know how much you got at the land?

A. No.

Q. May have been nine-tenths of it got away?

A. I tried to measure some of it and I did measure some of it, but I did not get any more than what belonged to us; but we could swap water.

Q. That is the proper way to irrigate anyway, isn't it?

A. Yes, sir.

Q. Where is it you said you irrigated first?

A. I developed a ranch in Idaho of 125 acres of alfalfa.

Q. Got a continuous flow there?

A. Well, yes, sir, we were supposed to.

Q. Well, where was it?

A. Seven miles below Shoshone, and Little Wood River.

Q. You were saying sometimes, and I interrupted you—you started to say sometimes and I interrupted you.

A. Sometimes we would help our neighbors out and run a little short ourselves below.

Testimony of A. A. Curtiss.

Q. Did you ever get the exact measurements that you used?

A. Yes, I had a dam that cost me a thousand dollars, and we had a headgate right there at my dam that went in over my dam to my ditch.

Q. Are you familiar with the rainfall in that country?

A. Well, not—I've been there for eight years, and I never measured it, never took notice of the rainfall in particular. It is a dry desert country.

Q. The land you have at present you are puning to, are you?

A. Yes.

Q. Are you getting all your water from puning sources?

A. Yes, at the present time I have got two pumps going.

Q. Do you know how much water you are getting?

A. I measured it but I pump, in the pumping plant I have got thirteen miner's inch; I measure everything with miner's inch; I don't know much about this acre feet business.

Q. You do not run your pumps all the time?

A. No, but I run two of them, and one goes one way and one the other; I never measured the other; it goes about sixteen thousand gallons a day, I think, twelve to sixteen thousand gallons.

Q. How many days do you pump, Mr. Curtiss?

A. Well, my place is all in orchard and I start in pumping about—it takes me about four days to irrigate.

Testimony of A. A. Curtiss.

Q. How many inches of irrigation do you give there?

A. Why, I gave the orchard, I think it was this last year, but it didn't require very much—I could have got along with less, although I have the gravelly land that takes more water than volcanic ash ground. It takes considerable more water for that kind of ground.

Q. Did you ever dig down to find out—have you got a well there

A. Yes, I have got two of them.

Q. How deep is the water?

A. It is twenty-two feet and a half, but it lowers and raises with the river.

Q. How high does it come?

A. Well, it comes about, I think it is seventeen feet.

Q. And drops then to twenty-two; is that the idea?

A. Yes, drops lower than that, to twenty-six.

Q. When you dug that well what kind of stuff did you find on the surface?

A. Regular river bed gravel.

Q. Very coarse?

A. Oh, yes.

Mr. BURR: That is all.

Mr. SMITH: That is all.

Witness excused.

Mr. SMITH: In the interest of time we have Dr. Pogue and Mr. Rueseneau, who will testify on the same line as Mr. Curtiss and Mr. Folmsbee and others, and it is largely cumulative, but I believe that we may dispense with them. Also another witness, Mr. Wilson R. Taylor, who assisted in the construction of these Ben-

Testimony of Wilson M. Taylor.

nett ditches in the first place. My understanding is under our stipulation it is not necessary to make any proof of it.

The COURT: When was this ditch constructed?

WILSON M. TAYLOR, a witness called on behalf of the defendant, having been first duly sworn, testified as follows:

DIRECT EXAMINATION.

By Mr. SMITH:

Q. Your name is Wilson M. Taylor?

A. Wilson M. Taylor.

Q. You live up in the Okanogan country?

A. Yes, sir.

Q. Did you help in the building of these ditches that Mr. Bennett uses?

A. I did.

Q. When were those ditches built?

A. In 1887.

Q. They were built for irrigation purposes, were they?

A. Yes, sir; for the Hodge's ranch, the Mason ranch and the Smythe ranch.

Q. The Smythe is the Bennett ranch?

A. Is the Bennett ranch. We all built them together. I claimed the Hodge ranch at that time, squatter's right, the land was not surveyed.

Q. You are all squatters there?

A. We are all squatters for a good many years.

The COURT: How far is it from where the water is turned out of this ditch that you constructed to the Bennett place?

Testimony of Wilson M. Taylor.

A. About a mile and three-quarters, I should think—a mile and a half or a mile and three-quarters. I never measured it.

The COURT: The water for the Bennett place is taken at that distance from the main ditch?

A. Oh, no, I thought you meant from Salmon Creek.

The COURT: How far is it from the ditch to the Bennett place, to the main ditch?

A. The main ditch goes right through the Bennett place, both of them.

The COURT: How far from the line of the Bennett place is the water taken out for irrigation purposes?

A. At the Salmon Creek, you mean?

The COURT: No, at the other ditch. Where is the individual ditch that Mr. Bennett takes his water from out of the company ditch is what I want to know.

A. It comes right out of Mr. Bennett's land, takes it out any place.

Mr. SMITH: He used them both, your honor. I have taken a little too much for granted. Mr. Bennett uses both these ditches.

The COURT: Those are the company ditches on this place, are they?

Mr. SMITH: One of the ditches used by Mr. Bennett and Mr. Heizman, and the other one over here is used by Mr. Bennett and the people below.

Mr. SMITH: Q. Did you dig that drain ditch in the swamp?

A. I did.

Q. When did you do that?

Testimony of Bert Jones.

A. I did that in 1887.

Q. You took out the water when you got the ditch built in 1887, you took out the water to irrigate?

A. Yes.

Mr. BURR: I have no questions.

Mr. SMITH: That is all.

Witness excused.

BERT JONES, a witness called on behalf of the defendant, after being first duly sworn, testified as follows:

DIRECT EXAMINATION.

By Mr. SMITH:

Q. Your name is Bert Jones?

A. Yes, sir.

Q. You live up in Spring Coulee above the Bennett ranch?

A. Yes, sir.

Q. Were you assesessor in 1910?

A. Yes, sir; deputy assessor.

Q. Do you know where this rock patch on Mr. Bennett's ground is that we have been talking about?

A. Yes, sir.

Q. Did you assess that land in 1910?

A. Yes, sir.

Q. Was it assessed as irrigated land or not?

A. Yes, sir; it was.

Q. Do you know Mr. Bonstedt?

A. Yes, sir.

Q. Did you have a talk with him in the summer of 1910 while you were surveying over at the Burris-Hendricks about duty of water in that country?

Testimony of Bert Jones.

A. Yes, sir.

Q. What did he tell you?

A. We were talking about projects in general, and I asked him what he figured on other projects in different parts of the country, and he said on the projects he came from in Nevada they figured seven acre feet, it took seven acre feet to irrigate down there.

Q. Irrigating alfalfa?

A. He didn't say; he didn't say what kind of crops. He went on—he couldn't see why it would not take that much in this country because they had good soil down there, deep soil, and up here it was rocky, gravelly, and it got just as hot as it did down there.

Q. Did he use any by-words in connection with that?

A. Yes, sir, I think he did.

The COURT: I don't care to have that go in the record, and it is not material at all.

Q. Did Mr. Bonstedt say what kind of a farmer Mr. Bennett was?

The COURT: I don't care what kind of a farmer he is.

Mr. SMITH: All right. That is all, Mr. Jones.

CROSS-EXAMINATION.

By Mr. BURR:

Q. Mr. Jones, did Mr. Bonstedt tell you that they figured the amount of water necessary in Nevada at seven acre feet?

A. Yes, sir.

Q. Did I understand you correctly?

Testimony of W. S. Bennett.

A. Yes, sir.

Q. He did not tell you there was a law over there making thirteen acre feet the maximum that could be appropriated, did he?

A. No, sir.

Q. Passed in 1903?

A. No, sir.

Mr. BURR: That is all.

Witness excused.

W. S. BENNETT, the defendant, called as a witness on his own behalf, after being first duly sworn, testified as follows:

DIRECT EXAMINATION.

By Mr. SMITH:

Q. You are one of the defendants in this case, are you, Mr. Bennett?

A. Yes, sir.

Q. How old are you?

A. I am sixty-five.

Q. When did you become owner of your present ranch?

A. In the fall of 1901.

Q. Where did you live before coming there?

A. In the State of Idaho.

Q. Did you ever practice irrigation before you came to Okonogan County?

A. Yes, sir.

Q. What were you raising?

A. I was raising all kinds of crops that grew on the

Testimony of W. S. Bennett.

land in that country and anything that would grow on the land in that country that we planted.

Q. Did you raise alfalfa?

A. Yes, sir.

Q. I wish you would tell the Court as briefly as you can how you raise alfalfa?

A. In the State of Idaho we raised our alfalfa, we irrigated through ditches, what we call ditches. The way we made our ditches we leveled our ground first, put our land in cultivation, leveled our ground, then we took a plow and plowed a furrow and irrigated through them with furrow is the way we irrigated in the State of Idaho. I never saw what we call in this country a levee until I came to Okanogan County. When I came to Okanogan County there was about ten acres of timothy and clover land, in the neighborhood of ten acres, that seemingly had been recently leveed. Well, I thought that levee was in my way, and in the spring of 1902, the first spring that I farmed any there, I plowed that up and harrowed them levees down. And there was people in that country asked to see how I was going to irrigate. I said I didn't want them ridges in it; I irrigate through furrows; I irrigated through furrows, and until two years ago there was not a levee in my field. But the people in Okanogan County thinks and advocates the idea—and I have been told that these reclamation men advocated the idea—that levees was the proper way to irrigate; and I hired a man to help me levee my place. He says, why do you levee your place when you claim it is not the proper way to irrigate, and

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I told the man that helped me that I was doing it to try to be popular; that the people didn't recognize me as an irrigator, and I says, I want to be popular, and I says I am trying to avoid a law suit, and I leveed my ground, and if I had to do it over again, law suit or no law suit, I would leave it there in my way.

Q. Have you plowed them out or taken them out, or part of them, or all of them?

A. I have not plowed them out, but I done my best this year with a spike tooth disk to knock all the crop off of them I could. I disked them with a disk and set as crooked as I could, and we can work them down that way and not plow up the field of alfalfa, to level it after I had got it seeded.

Q. Tell the Court how you applied water—that is, how you mature the crop when you first irrigate it?

A. When I first irrigate it we irrigated through these levees. We just turned the water loose out of what we call the head ditch. We had no head ditches in Idaho; we didn't have any use for them.

The COURT: What time of year did you irrigate, Mr. Bennett?

A. Well, we varied in times to irrigate. Sometimes we irrigated April, and sometimes once in a while there is a year that we do not need it till the first of May, but generally in April for the first crop of hay.

The COURT: The first of April?

A. Of May—some time between the middle or last of April generally we turn the water out of these head ditches to flow through these levees, but this year I put

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marks, and always—I did every year—we did when we first seeded our alfalfa; we made an arrangement of our own; we take a piece of scantling a few inches wide. If we do not happen to have that we take a pole and split it open and slope it like a sled runner when I was a boy. We pin a piece across the top of that and make these runners so far apart, then run the water down them little trails; ride on them and make an impression on the ground, and run the water down these little trails made with these strips.

Q. When you began applying the water you irrigate once early in the spring?

A. Yes, sir.

Q. Is that to start the alfalfa?

A. Yes, sir.

Q. When do you irrigate again?

A. Just before we cut the crop.

Q. That is the first crop?

A. The first crop.

Q. Then when do you irrigate again?

A. We irrigate again immediately after we get the crop stacked off of that piece of land. I do, and we do—all of us done that in Idaho.

Q. Now, when do you irrigate again?

A. Just before we cut the crop.

Q. Then when do you irrigate?

A. So on the same way through the crops of hay.

Q. How many crops do you raise up in that country?

A. When we wasn't bothered any with this element that has been bothering us in that country, we raised

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three crops. Since then I have been raising three crops.

The COURT: You irrigate six times a year?

A. Six times a year for three crops of hay; yes, sir, all except one year.

Q. This element you speak of, that is not the weather?

A. No, sir; the weather don't bother us a particle.

Q. Now, I want you to tell the Court, Mr. Bennett, how the alfalfa, how you mature it—that is, what it looks like when you do mature it your way?

A. Well, when I mature alfalfa my way I have what water I want to use, a crop of alfalfa never stands up; it always drops down. A good crop of alfalfa never stands straight; it always falls until you have got to turn the point of your guards down until you will even pick up gravel to pick up the hay, and sometimes you cut your hay pretty long.

Q. Why do you mature it that way?

A. Because we get more hay.

Q. You grow it faster, too, do you?

A. Yes, sir; it will grow faster if properly irrigated than it will to not properly irrigate it.

Q. Hay grown that way, is that any finer in quality?

A. We suppose that it is a better hay to keep it growing; that is the only way you can grow hay, a good heavy crop. If you have a stand of alfalfa and neglect to irrigate it properly it will quit growing, and if you irrigate it then it don't benefit that crop any. If ever it stops growing and you irrigate it, it just starts a new crop instead of making that old crop grow.

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Q. Now, alfalfa even though it is not watered enough to mature crops to the best advantage it will look green, and that sort of thing?

A. Oh, yes, it will look green. I had alfalfa in my field when I left there that was falling down that had been properly irrigated.

Q. This year?

A. Yes, sir; but I didn't irrigate it out of Salmon River.

Q. Where did you get the water?

A. I irrigated out of a little creek called Read's Creek.

Q. Where does that creek come down? Can you show us on that map?

The COURT: That creek is not involved here, is it?

Mr. SMITH: No.

A. This is my barn, and right in here northwest of my barn comes this creek bed. This comes around here in a circle and will run into this ditch.

The COURT: That creek that the land is irrigated from does not seem to be involved here.

Mr. SMITH: No.

The COURT: Then it is not necessary to go into that.

Q. Will you tell the Court, please, or show us where you take your water through those two ditches?

A. No, this ditch does not belong to anyone only Mr. Heizman and I. Here is where it is taken out of the stream. This is where they come together. This is called the junction.

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The COURT: On your place?

A. Yes, sir, the line of my place is right here. There is a little piece of land I irrigate out of Salmon ditch before we touch this—it is necessary for me to irrigate from both sides of my field; the way the land is I have got to irrigate, and take it out of both these places.

The COURT: Who uses the ditch after it strikes your land here, how many different parties?

A. After it strikes my land here?

The COURT: Yes.

A. I don't know that I can tell you. I can tell you all the old timers, but it is sold out in orchard tracts. This is my ranch where I live, and the second ranch is Mr. Heizman's, and the third ranch is Mr. Hanson (?), and the fourth ranch is known as the Hollinger ranch now. It used to be the Hodges ranch. The next ranch is Mr. Hanan (?), an old timer; tells me he didn't have any water right in that ditch, the old timer tells me he did not work on it.

Q. Where do you think it will be the most proper place for you to receive the water that the Court awards you in this case?

A. I have got to receive the water at this ditch to irrigate this little patch—that is only a small patch there—I have got to receive water to irrigate that above the junction, right at the junction will be the most appropriate place.

The COURT: How much is there above the junction?

A. I couldn't tell you; something in the neighbor-

Testimony of W. S. Bennett.

hood of two acres, maybe not over an acre and a half, just a three cornered piece of land.

Q. With the exception of this three cornered piece of land, you would like to have it at the junction?

A. Yes, sir.

Q. How far is that junction below the Government spillway in the creek there?

A. The spillway in the Spring Coulee ditch?

Q. Yes.

A. It is almost three-quarters of a mile, besides that far, a mile anyway, besides the creek—the ditch itself crosses the one hundred and sixty acres of land belonging to Mrs. Carpenter, not all now, but it formerly belonged to Mrs. Carpenter. Some of it is sold out in tracts. Some of it is taken off on Charley Carpenter's tract where the spillway is; it is on Charley Carpenter's ranch.

Q. That is almost a mile, you say?

A. It is a half a mile to Mrs. Carpenter's and about a quarter of a mile or three-fourths of a mile, besides; this ditch is very crooked; our hills—well, it shows up here on the map. Only above here the crooks are shorter than they are here on mine. The ditch is built to take in what good land there is in the country, built so as to catch the good land.

Q. Something has been said, Mr. Bennett, about your having to run large puddles of water on he land down there to get water on some other part of it?

A. I don't understand the question.

Q. Something has been said about there being some

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high bumps on your land there some place that would necessitate flowing water over the land a foot deep, or something like that in order to reach that—explain all that to the Court?

A. This rock land, this place here on the map is rock—I irrigate it from this west ditch. This is the swamp, and here is the rock. It is on this side where the rock is, along the ditch, of mine and Mr. Heizman's, and it is quite rocky and when—well, it don't matter about that—I was going to tell you the conversation of somebody else. I had irrigated that ever since I have been in the country. I used to run cattle. I irrigated it, pastured it—in the fall when I gathered the cattle off of it, before I turned them on that land, turned them off, first used it for pasture, the second spring I was in the country—the first three years I sowed timothy, and clover seed among them rocks. There is more kinds of grass on them rocks than I believe on any man's farm in five miles. There is bunch grass, timothy, clover, wheat clover, alfalfa; and I sent for some garden seeds to a firm in the east that was advertising seed, and said they would send you samples of grasses over this acre, but I don't know what it is. I just planted it and paid no attention to the variety, but they are growing in them rocks. It makes a good crop of hay, that makes hay after a thrashing, but there are more leaves than there are on timothy; but that is only little patches here and there where I distributed little sample packages of that seed.

Q. Would it be a benefit to that ground or that grass to irrigate it?

Testimony of W. S. Bennett.

A. Yes, sir, there wouldn't anything grow on it only early in the spring, without irrigation, just like bunch grass grows.

Q. To make it a little more definite, now, there are some high places down in here somewhere one hundred and forty feet long, or something like that; tell the Court about those.

A. There is a place on this side of my land, it is about in here. There is a high place there. There has been some photographers hired to go in there and photograph that piece of land, but I had it made from, measured—two of these witnesses has got the measure; I didn't take it down; they measured it with a tape line; they never was ordered on by me or any other man, I don't think. It is a narrow piece; it is something—well, I remember the width, but I don't remember the length. It was forty-five feet, as well as I remember, wide, this backbone, but it is irrigated on three sides of that, but that does not raise a good crop there. If I could have built a flume right here it would only take a short flume to irrigate it like other farmers. I wanted it in here below the swamp in another place. There is a piece in a diagonal shape, I forget the measurement of that—there is a man here that has got the measurement of it—that never was irrigated. All the rest, the rocks that was stated here yesterday that dead grass was seen on it because it could not be irrigated, I can run water on it without making a mark on the ground with a plow or anything, that has all been irrigated; every bump on them rocks has been irrigated but those two places have

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not been. They could not be without some work being done.

Q. Tell the Court as nearly as you can the area of those two bumps in acreage.

A. Well, it would be a very small amount. I never tried to figure on it.

The COURT: A quarter of an acre or so?

A. That would be all. I do not believe in my opinion there would not be an acre in the two pieces; there might be, though; a man wouldn't have any need to take any measurements, he could guess at a piece in the center of the field. There are two small pieces there that was never irrigated.

Q. How about this rock patch being irrigated at the time you bought the land?

A. All I know is what the man told me we bought of.

Q. That was Mr. Smyth?

A. Mr. Smyth in looking at the farm of course it is natural for a farmer to try and buy another farm as cheap as he can—said it is practically no good to him; he says it is fine fall pasture, is what Mr. Smyth told me; that is all I know about that.

Q. Did he say how long he had been irrigating?

A. He didn't say he had been irrigating at all.

Q. Were there any indications of it ever having been irrigated?

A. I bought it late in the fall and pastured the grass off.

The COURT: You have irrigated yourself in 1901?

Testimony of W. S. Bennett.

A. I located in that country in the fall of 1901, and the summer of 1902 is the first I ever irrigated.

Mr. SMITH: Q. Do you know what a miner's inch of water is?

A. Yes.

Q. How much water, in your opinion, do you require on that land to properly irrigate it for the production of crop to the best advantage?

A. I have got some land that I think that water won't irrigate. That land—there's no use in me describing it, those other men described it. I helped all those men dig those holes on the ranch. I dug all the holes; they never dug any—setting fence posts, digging to see what was there the first year I was there, and it is all of that gravelly land where it is porous, gravel under it, will require more than an inch to the acre of water, to the acre, to irrigate that, but I have other land that won't require so much.

Q. Now, would you show us on the map about where the land is that won't require quite so much?

A. Right here by this swamp—gets this out in the swamp—this land lies right here until I come to that alfalfa, then there is a piece of land lies right in here is timothy and clover, that there won't require so much water as that gravelly land; it is deeper soil; it don't require so much water as that rocky sandy land.

Q. Average it all up, and tell the Court what in your opinion you should have per acre for the entire place.

A. Well, I don't believe any one irrigator can irrigate it with less than an inch to the acre; it has got to be

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—another thing, you can't irrigate it western style and irrigate it. You can't get up at nine o'clock in the morning and get your breakfast late, and get out and change your water, and quit early in the evening and go to town between times and irrigate that with an inch. A great many people irrigate and have pleasures; I can't do it. It is work to irrigate; you have got to stay there, and if a man makes pleasure out of it he has got to have more than an inch; he has got to stay right there with it; and then I believe a man can irrigate it with a miner's inch.

Q. Under what pressure?

A. Under six inch pressure.

Q. Tell the Court whether or not you have ever at any time wasted any of the water from Salmon Creek, or any water at all there on your place.

A. I don't believe there ever was a man that irrigated in his life but what at times has wasted water. There is no man can tell in damp weather—say it comes out a little cloudy and sprinkles a little, and the rain makes it damp, and you turn the water into those furrows during the night and it will run farther than a man calculates it should run, and often runs off. It has run into a swamp that way with me in a night. I have left it at times run into that swamp right close to that swamp there is a little piece of land—there is some alkali on it—I flushed that piece of land quickly—what we call flushed it—run water over it quickly—to get that tall rank start of the first crop of alfalfa. After you get the first crop started it goes good. I flushed it, let

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the water run right into that swamp; that is when I first came in there and that is the way I was accustomed to irrigate.

Q. But what I am trying to get at—to advise the Court in a general way whether you have made any wasteful use of water there, practical waste?

A. No, sir; I never practiced wasting water.

A. Have your crops ever burned with anything of that sort in recent years on account of any——

A. Yes, sir; part of my crop burned last year.

Q. For want of water?

A. Yes, sir.

Q. You were having trouble with the Government last year, I believe?

A. Yes, sir.

Q. Or some of the Government employees.

A. Yes, sir; I called the water master's attention to a piece of timothy in these rocks that was burning.

Q. Who was the water master?

A. Mr. Muldrow. He came to my field, where I called his attention to right where he could see it—he was right in my field—I asked him to walk down the line with me. He walked down to where he could see this hay burning.

Q. Did you offer to show him any other of your crops that was burning?

A. Yes, sir; I asked him to go to the most north part of my field and look at some wheat that was sowed with alfalfa.

The COURT: The witness practically admitted that, as I understand.

Testimony of W. S. Bennett.

Q. Mr. Bennett, I don't think of anything else to ask you—is there anything that you think of that you want to tell the Court in connection with the facts of this case, that is essential as to what water you need there on the place?

A. Concerning the use of water on the land I do not know that there is.

The COURT: Cross-examine.

A. Oh, I have made propositions to these reclamation men as to what I would do to keep out the law.

CROSS-EXAMINATION.

By Mr. BURR:

Q. Mr. Bennett, when did you irrigate first this year?

A. I commenced to irrigate on the evening of the 7th day of May.

Q. You testified in regard to the levee system of irrigating as compared with the system that you had been acquainted with in the Weiser country in Idaho; what was the effect of this change? You said you did not like it as well. What was the effect of it?

A. It requires—it is more trouble to me to irrigate that way—it is more bother to be made that way. You have got to go to the expense of leveeing your land; I think it will take more water to irrigate that way than it will in furrows; it does for me. I can irrigate with less water to use furrows than I can to use the levees.

Q. How much of that land have you got into the check system?

A. All of my alfalfa land is under the levee system now.

Testimony of W. S. Bennett.

Q. How much do you estimate your alfalfa is?

A. How much hay to the acre?

Q. How much of your land is in alfalfa?

A. There is in the neighborhood of thirty acres that is irrigated out of Salmon Creek; but I am going to put in more. There is about ten acres of those rocks and thirty acres of alfalfa, that would be forty; there would be about twenty-three acres of timothy and clover there.

Q. Well, there is a good deal of natural grass on that, is there not?

A. There is some natural grass on that.

Q. There is a portion of that that has not been—I am not sure as to that though—you spoke of trouble with Mr. Mulgrow—Mr. Mulgrow was not at that time connected with the reclamation service, was he?

A. He told me he was appointed water master, and asked me if I did not know it.

Q. Well, the water master, water commissioner, isn't it?

A. Well, that is what I call water master, the boss of our ditch. He said he was appointed by the state, by the county.

Q. Yes, sir, appointed by the Judge of the Superior Court and the county—he is not connected with the Government at all, is he, Mr. Bennett?

A. I couldn't tell you; he said he was water master.

Q. The Government has never taken any jurisdiction over your water right?

A. They have tried to.

Q. We have never set that head gate through which you get your water?

Testimony of W. S. Bennett.

A. They made all kinds of threats they would do it, and set times when they were going to do it.

Q. Mr. Bennett, you have a—(inaudible).

A. That has not been figured out.

Q. In the irrigable land there?

A. No, sir; but it was irrigated before I stacked hay there.

Q. It has not been irrigated for the last two years?

A. When I have hay stacks I do not irrigate my hay stacks.

Q. The confines are within the border of that?

A. No, sir.

Q. What is the area of it?

A. I never measured it. It is just hay simply where I stacked part of my hay.

Q. It is half an acre, is it not?

A. It may be a half of an acre, and it may be a little more, I couldn't say as to how much.

Q. Did you ever measure the water directly yourself?

A. I have measured it after the fashion that farmers measure water—rake a square and measure the water that is in the ditch.

Q. You never measured it to know how much you got through the entire season?

A. I had it measured to me, but I never measured it to see how much I got neither season in this country.

Q. Did you ever have it measured to you over the entire season?

A. No measurement of water in this country through

Testimony of W. S. Bennett.

our ditch, not for the entire season, no, sir. I irrigated from Mr. Mulgrow's measure last year over back of my farm, from the time he measured it until we quit farming.

Q. You spoke of the possible loss of water accidentally during the night—you do not of course irrigate during the night time?

A. I do; I let the water run in the field.

Q. I mean you don't stay up and stay with it?

A. No, sir.

Mr. BURR: That is all.

RE-DIRECT EXAMINATION.

By Mr. SMITH:

Q. What kind of crops are you raising on your place, generally?

A. Hay—most all hay, a garden and an orchard; there is hay grows in my orchard.

Q. How much of an orchard have you?

A. It has been assessed to me ever since I have been in that country as one acre.

Q. Is that about what it is?

A. It is closer to that than anything else.

Q. What is your intention—to devote that land to—that is, are you going to continue to raise these hay crops?

A. That is the intention, to raise the hay crops, but if anything should come up that there should be a change in our business affairs in that country, why I would want to raise what I could raise on that land that would be the most money in.

Testimony of W. S. Bennett.

The COURT: That is his right and privilege. I do not care what he intends to do in the future nor what he has done in the past; it is only what he is doing now.

Mr. SMITH: That is all. I think, your honor, with the exception of the computation of the law in transportation—

The COURT: If the water is taken out on his land I do not care for any question beyond that.

Mr. BURR: I am not positive but that in the interest of all concerned we have not made a mistake in the measurement at the spillway. The Act of 1907 will vouch for the transportation of stored water past the gates which are not entitled to it so as to secure the diversion at the point where the water should lawfully be diverted and under that Act we are obliged both in Yakima county and in Okanogan to secure the water commissioners every year to see that the gates along the way are put at such a figure that the water shall go by in proper shape; and I am inclined to think there might be a possibility of complication in the event of our having a decree for the measurement at a different point than the headgates over which the water commissioners have given them jurisdiction; and furthermore, the Government has done this possibly with all the old water right owners of the valley upon the basis of the measurement at the point of diversion; and that is done for the reason that we were unable to take jurisdiction over their system, over their canals, without receiving some compensation for it—we could not lawfully do it; so we had to measure at the point of diversion and that has been done

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with the major portion of the owners; so I am inclined to think for the interest of all concerned, and in order to avoid a future cause of action as to what the loss was in transportation, we should probably have a decree for measurement at the point of diversion; but if there was no objection on the part of the parties we could continue the measurement at the same point we had heretofore, namely, at the spillway; and I think we should have a decree there at the point of diversion.

Mr. SMITH: Why cannot we get it there where the ditch is, have it on his place close where he can get water on that little square above?

Mr. BURR: If the Court please the main reason why we brought this action at this time was because in the past the water commissioner's authority over that head-gate has been called in question. Last year, the water commissioner, Mr. Mulgrow, put a sign on the head of that gate under the Act which contains a misdemeanor clause serving notice on the public the gate had been set by the water commissioner.

The COURT: Can't the officer who has authority go any place?

Mr. BURR: No, not beyond an adjudicated water right. Whether the adjudication is this cause with the point of measurement in another place would give him authority to set that gate we are at a loss to know; it might cause litigation.

The COURT: He would have authority to follow the decree to any place, would he not? He would have to measure it at the point from which it is taken—that is, at the point specified in the decree.

Testimony of W. S. Bennett.

Mr. BURR: Then you had two places of measurements—one for the balance of the Spring Coulee ditch, and one for Mr. Bennett. He is given authority by the Act over the headgate of that Spring Coulee canal providing all of the water rights were settled by contract or by decree—we will now have everything settled by contract or decree as soon as the decree is rendered. In that case we have stipulated a *pendente lite*.

The COURT: Can you agree what the loss is between the point where the water is diverted on Mr. Bennett's land, and the point where the water commissioner measured it?

Mr. BURR: I think it was testified yesterday 50 per cent.

Mr. SMITH: I think that is pretty largely a guess; we found 28 per cent of loss.

Mr. BURR: You found that through Mr. Bennett's place there is a heavy loss along there.

Mr. SMITH: It is all along there, too, the same way.

The COURT: I think 15 per cent would be a fair allowance for an old ditch that length.

Mr. BURR: Both witnesses have testified to the fact it was 14.5, something like that down to that upper weir.

Mr. SMITH: Mr. Bennett says his land is in such shape that he has got to take it out of the two places; has got to have his water at two places.

The COURT: The only thing I care for is to make the decree specifically the place the water is measured, so we won't have to try another law suit in case it is violated. If there is no objection I will establish the

Testimony of W. S. Bennett.

point at the point where the water is measured to the other parties and make due allowance for the loss down to the spring.

Mr. BURR: Rather than make it at the headgate?

The COURT: Yes. If there is no objection I will make the measurement at the same point where the water is measured to the other parties and will make the proper allowance of the loss between that point and the Bennett ranch.

Mr. SMITH: That is measured at the spillway, is it not?

Mr. BURR: It is measured at the spillway now—not measured at the headgate.

Mr. SMITH: We would rather have it at the spillway.

The COURT: Very well. The decree might provide for a modification in the event the place of measurement is changed.

Mr. BURR: I believe that would suit everybody to have a modification in case the place of measurement is changed.

Mr. SMITH: We want to be just as nice as we know how; we certainly want to avoid being dragged down here again.

The COURT: I doubt whether that would cause any particular trouble, however, the mere change in the place, place of measurement. How far is the spillway to the headgate?

A VOICE: About thirteen hundred feet, not to exceed that.

Testimony of W. S. Bennett.

The COURT: Well, the loss would be very trifling—that is an old ditch carrying considerable body of water.

Mr. SMITH: It is an awful bad one—you have no idea what it is.

A VOICE: The first part of that ditch is in excellent shape.

Mr. BURR: The contract which we have with all the others is at the headgate. The stipulation pendente lite is at the headgate. We measure at the spillway, but I think the official place should be at the place of measurement. If no one objects we could measure it from other places. I think the decree should be at the headgate. I think that is more satisfactory to you, is it not?

Mr. SMITH: We would very much rather have it at the ranch, if your honor please.

The COURT: This is a matter of law regardless of the water commissioners, or Government, or anything else. This defendant is entitled to have his water measured at the point he takes it out of another ditch—that is, the place at which he had it before any of these laws were passed; but I want to make as pleasant to all parties concerned.

Mr. SMITH: We are not going to cause a bit of trouble. There is no official can check off at the point of measurement any proper measurement, if the point of measurement is put at the land owned.

Mr. BURR: Our defective state laws, so far as I know, there will be merely a case of the Water Commissioners not knowing how much to turn in at the head-

Testimony of W. S. Bennett.

gate—we will lose practically the effect of this entire litigation which we have been trying to bring for two or three years, to Mr. Bennett down here.

Whereupon Court adjourned until 2 P. M.

Mr. BURR: I would like to ask the defendant a question or two.

W. S. BENNETT, recalled.

DIRECT EXAMINATION.

By Mr. BURR:

Q. Mr. Bennett, how deep is that well?

A. Twenty-eight feet.

Q. Is that on a trifle of a bench over and above your alfalfa, a little higher than the alfalfa?

A. A little higher than the alfalfa.

Q. How much would you say?

A. Oh, it is just a gradual slope right off from that house.

Q. Is it five feet higher than the alfalfa?

A. East of the alfalfa I would not think it was over five feet—it may be not hardly that—that is, the alfalfa that raised east of the well, I mean.

Q. The nearest alfalfa?

A. Yes, east it is not much difference, east and south on each side of my orchard, the alfalfa on the south side and on the east, just a natural fall of the ground there.

Q. How long did it take you to get the water from your land—how long have you irrigated it?

A. I irrigate all the time after I commence.

Q. I thought I understood you to say you irrigated six times.

Testimony of W. S. Bennett.

A. I irrigate six times for the crop, but then I have got more crop than you were talking about alfalfa—I give my timothy and clover and me and Mr. Heizman has always changed water; there are times he is watering when I ain't, but we have the water in the ditch for us two all the time.

Q. That is what I am getting at, you do rotate some?

A. Him and I has changed water, yes, sir.

Mr. BURR: That is what I want to ask.

Mr. SMITH: Just one question. Down at the bottom of the well—what kind of material is down there?

A. In the well?

Q. Yes.

A. When you get down twenty-five feet I think you are—

Mr. BURR: (Interrupting). Does it fluctuate between winter and summer, the water surface of your well?

A. Yes, sir.

Mr. BURR: How much?

A. Well, I couldn't tell you exactly how much it does. I dare not let the pump run to the bottom because there is quicksand in the bottom of the well, and if I let it get close to the quicksand it pumps quicksand, and the water is not good; so I had to lift the bottom of the pipe up from the water, from the sand considerably to keep from touching the quicksand.

Mr. BURR: How much fluctuation is between winter and summer between the highest and the lowest?

A. Well, I do not know because my well is filled up until I do not see the water.

Testimony of F. Bonstedt.

Mr. BURR: That is all.

Mr. SMITH: That is all.

Mr. BURR: So that the bottom of the well surface or the top, you said the water was twenty-five feet below the surface of the ground. You meant the top of the water or the bottom of the water?

A. The water is very shallow in this well. It is closer to the top of the ground, but then when I quit digging it, before I filled the well up, the way I fixed my well set in terra cotta, then filled up back with dirt between them, only had two feet of water in the well.

Q. It may have risen since, though?

A. Sure, it might have raised since.

WITNESS EXCUSED.

F. BONSTEDT, recalled, on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

By Mr. BURR:

Q. You heard the testimony in regard to that rocky land, Mr. Bonstedt; will you describe the rock there, briefly, the condition of that soil?

A. The rocks vary from pebbles to boulders as heavy as ten tons. There is a little soil lying between those large boulders, and I did not consider that it could be plowed, or could be mowed if it had a forage crop, with a machine. It might be mowed with a scythe, or sickle.

Q. Mr. Bonstedt, in connection with the digging of the ditches for the Okanogan project, you are familiar with that, are you?

Testimony of F. Bonstedt.

A. Yes, sir.

Q. What showing was there as to the soil beneath the surface on the project as a whole?

Mr. SMITH: The project?

Mr. BURR: Yes, sir.

Mr. SMITH: I do not believe this is rebuttal, your honor.

The COURT: The question is very general. If you do not challenge the testimony as to the particular character of the soil of this land, what is the purpose?

Mr. BURR: As I understand it, I have admitted that this testimony in regard to the character of the soil will not be challenged, but the fact of the character of the soil upon the ground, the water necessary, I do not think I stipulated any admission upon that.

The COURT: Well, if that is the purpose of it.

Mr. BURR: I want to bring out that the soil on the project where Mr. George and Mr. Hendricks have shown they get a fair duty of water, in the company's estimation, the soil beneath the surface is not more retentive of moisture, possibly, than is Mr. Bennett's subsoil, as testified by the defendant, and not challenged by us.

A. I am familiar with the material that was excavated from the canals, and that was very gravelly.

Q. You made some cuts to get considerably below the surface?

A. Yes.

Q. Is the soil beneath the Okanogan project retentive of moisture?

Testimony of F. Bonstedt.

A. Practically. The whole project is underlaid with gravel sub-soil.

Q. Conceding for the purpose of this question that the testimony regarding the soil underneath the surface of Mr. Bennett's land, as shown by the witnesses for the defendant is correct, would you say that that soil is exceptional in regard to the amount of water required or not?

A. That the Bennett soil is exceptional?

Q. Would you say that, admitting—

A. No, I wouldn't testify exceptional.

Q. In your judgment, will the Bennett ranch get along with as small an amount of water, if properly cultivated, as the average land?

Mr. SMITH: We object to that on the ground it has all been gone over in their case in chief.

The COURT: I do not think it is rebuttal.

Mr. BURR: Take the witness.

CROSS EXAMINATION.

By Mr. SMITH:

Q. Just a question, Mr. Bonstedt, please. You think the ditch line from the canal is about as retentive as Mr. Bennett's place, retentive of water?

A. I think the ditch as a whole is less retentive.

Q. As a matter of fact, your ditch, just this side of Okanogan, lost about sixty-eight per cent of the entire volume of water in less than a mile, didn't it?

A. No, not that I know of.

Q. What was the loss?

A. Of the whole canal system?

Testimony of F. Bonstedt.

Q. Oh, no, just in about a mile there?

A. The main canal lost ten per cent of the volume it carried when it was running full.

Q. You cemented how much there this spring?

A. I do not know the exact number of feet.

Q. Well, now, where you did that cement work that piece of ditch lost about sixty-eight per cent of the entire volume of water running through that ditch, didn't it?

A. Only ten per cent, Mr. Smith.

Q. Only ten per cent?

A. Yes, sir.

Q. That would be a loss of about how many cubic feet in that little stretch of land?

A. About a mile and a half, it would be ten second feet from a cubic foot a second.

Q. Mr. Bonstedt, that would be about ten per cent, you say?

A. Yes, sir.

Q. Doesn't the data that is gathered by the experimental stations of the United States show that the loss of water in ditches is twenty-five per cent loss in transportation—is twenty-five per cent?

A. Of the loss?

Q. That is the general average over the state?

A. I don't know what it is, what their figures are.

Q. And don't you know also that the Government tests show that the general average in all ditches, the loss in transportation, from intake to landing, in new ditches is sixty-five per cent?

A. I did not know that.

Q. And in old ditches is fifty per cent?

Testimony of C. M. Zediker.

A. I do not know that. The ditches under the project do not prove that.

Q. You keep any check of the experimental stations—read their bulletins?

A. Occasionally.

Q. Beg pardon?

A. Not of this state; I have known of their bulletins.

Q. Have you read any of the observations by Professor Fortier, Samuel Fortier?

A. I have read his articles for many years on cultivation.

Q. Now, I will ask you if you read those, if he does not say that the duty of water in the State of Washington in his "Water and Forest" is a pamphlet entitled, in July to October, 1906, states the duty of water in Washington is the general average is eight acre feet per acre?

A. I do not know that.

Q. Did you ever read his "Water and Forest?"

A. No, sir.

Q. That report will be found in work on water rates, third edition, page 525.

Mr. SMITH: I think that is all, Mr. Bonstedt.

WITNESS EXCUSED.

C. M. ZEDIKER, recalled as a witness in behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

By Mr. BURR:

Q. Mr. Zediker, you testified that you had been on the Sunnyside unit for some time?

A. Yes, sir.

Testimony of C. M. Zediker.

Q. Of the Yakima project?

A. Yes, sir.

Q. Do you know the duty of water down there?

A. I do.

Q. What was it?

A. The amount delivered to the farmers at the present time by the Government is three acre feet, but that has not been successful for the proper growing of crops. The majority of the people in that country have had to put out a considerable area of their land to orchard to make that duty of water suffice. Of course under that project there are lowlands that do not require that, but on the bench lands of volcanic ash origin that quantity of water is not sufficient, though it is the amount stated in the contract.

Q. Don't you know, Mr. Zediker, that under the old Washington Irrigation Company, the predecessor of the Government, they delivered one cubic foot to 160 acres?

A. I know that under the contract of the Washington Irrigation Company the contract called for one cubic foot per 160 acres, but at no time up to the time that the Government purchased that project did they measure the actual quantity of water to the settlers; in fact, for the last two years that I was with the Washington Irrigation Company I acted in the capacity of assistant to the superintendent, and it was my work to settle disputes between the farmers and the controller as to the duty of water, not the amount, under their contract, the company was obliged to deliver to them, but the amount which they actually needed for those lands.

Testimony of A. A. Curtiss.

Q. Well, Mr. Zediker, did you ever observe alfalfa roots going down to water—do you know how deep they go?

A. I have seen occasions in that country where they have gone twenty-eight feet, twenty-four feet.

Q. Don't you think the alfalfa roots in Mr. Bennett's land are down to water, Mr. Zediker, honestly?

A. I don't. There might be as light area south of the swamp.

The COURT: I know it will burn up in twenty-four hours when water is within six feet of the surface.

A. I had some experience with water at Brewster, with water within five feet of the surface of the year mentioned.

Mr. BURR: That will do, Mr. Zediker.

WITNESS EXCUSED.

A. A. CURTISS, recalled as a witness on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

By Mr. BURR:

Q. Mr. Curtiss, I think you testified that you put some land in fruit and that you are pumping to it?

A. Yes, sir.

Q. How much more water was required on alfalfa than your fruit, will you estimate roughly?

A. Well, it is a good deal owing to the land.

Q. Well, right on your piece there?

A. On the present land I have?

Q. Yes.

A. Well, take it as an average?

Testimony of F. Bonstedt.

Q. Yes, sir; half as much or twice as much, or fifty times?

A. Well, I should want three times as much as the present water that I use for the trees.

Q. How much more would it need on Mr. Bennett's place than you are using for your fruit, would you say?

A. Well, I have one acre of ground something similar to Mr. Bennett's. Now, for illustration, I sent my sparker in my engine here to Spokane, and I had to hire another pumping plant to pump water on that ground, and they was not just fixed up right, and I put eight oil cans to the cherry tree, and it was not over half an hour until it was out of sight.

Mr. SMITH: I heard you tell about that. I understand it, but I do not believe you made it plain whether you hauled those cans of water to the tree?

A. I carried them right from my trough; the row of trees is right up and down, right in front of my house.

Mr. BURR: How many times more water would it take to raise alfalfa on Mr. Bennett's place than it takes to raise trees on yours, that is what I want to get at—half, or more, twice as much, or fifty?

A. It would take about three times the amount, I should think.

WITNESS EXCUSED.

Mr. BURR: There are just about a couple of questions I would like to ask Mr. Bonstedt.

Mr. BURR: Q. Mr. Bonstedt, will you relate any measurements that you made in regard to the amount of water Mr. Curtiss used on his, any computation—I

Testimony of A. Castile.

do not mean measurements you made in regard to Mr. Curtiss' use of water.

A. I made some computations from figures that Mr. Hodge gave me. He stated that he is using 13 miner's inch in irrigating eleven and one half acres; but during the season of 1911, pumped this water, pumped it twelve days at the rate he was pumping, or the quantity he placed upon these eleven and a half acres would amount to about—yes, a little over six acre feet—it would be about fifty-seven one hundredths of an acre foot per acre.

WITNESS EXCUSED.

Mr. BURR: I would like to call Mr. Castile for a few questions.

A. CASTILE, recalled as a witness on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

By Mr. BURR:

Q. Mr. Castile, in regard to that land below the swamp on Mr. Bennett's place, what is the condition of the gravel—what kind of gravel—

Mr. SMITH: That has all been gone into and I object to it as not rebuttal.

The COURT: He may answer the question.

A. There are four or five acres of that land covered with wire grass and salt grass, and some cat-tail, which shows indication of excessive moisture.

Mr. SMITH: We object to that. He was not asked anything about what it shows, but what is there.

Mr. BURR: He has qualified as an expert.

Mr. SMITH: His answer is not responsive to the question.

Testimony of A. P. Wheeler.

The COURT: He has answered the question, although it is not in rebuttal of anything offered here.

Mr. BURR: I thought they testified to the character of the grass down there, the condition it was in.

The COURT: That was part of your original case; you went into it in the first instance. He has answered the question, however.

Mr. BURR: Q. Mr. Castile, admitting for the purpose of this question that the testimony given on behalf of the defendant in regard to the soil beneath the surface, on Mr. Bennett's land, would you deem the conditions exceptional in regard to the amount of water necessary, or the contrary?

A. I would deem it exceptional.

Q. Would you deem that his land upon that showing would need more water than average land in that country, or would not?

A. I would not.

Mr. BURR: That is all.

Mr. SMITH: That is all.

WITNESS EXCUSED.

A. P. WHEELER, witness recalled on behalf of plaintiff, testified as follows:

DIRECT EXAMINATION.

By Mr. BURR:

Q. Mr. Wheeler, you testified that as to what the amount of water necessary on Bennett's place was, have you ever had measurements for any given tract for the entire season, so that you can tell exactly how much was used?

Testimony of G. H. Wheeler.

A. Yes, sir; but not in this state, nor any particular individual contract of a certain number of acres that I can call to mind at this time, and I have measured several of them.

Mr. BURR: That is all.

WITNESS EXCUSED.

G. H. WHEELER, witness recalled on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

By Mr. BURR:

Q. Mr. Wheeler, did you ever have these measurements upon any particular tract of land of a given number of acres for an entire season so as to ascertain the real amount of water actually used upon that tract for that entire year?

A. No, sir.

Mr. BURR: That will do.

Mr. SMITH: That is all.

WITNESS EXCUSED.

W. C. MULDROW, recalled on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

By Mr. BURR:

Q. Mr. Muldrow, conceding for the purpose of this question that the testimony given in regard to the character of the soil beneath the surface on the defendant's place is correct, is the showing exceptional in regard to the amount of water necessary or otherwise?

A. I so regard it.

Q. Beg pardon?

ques...

Testimony of ---. ---. Edwards and ---. ---. Shaw.

A. I would regard it as exceptional for that country.

Q. Mr. Muldrow, did you ever see excavations made in alfalfa land for to see how deep the roots grow?

Mr. SMITH: Oh, we concede they go away down, your honor.

The COURT: They go to the bottom. That is all.

Mr. SMITH: That is all.

WITNESS EXCUSED.

---. ---. EDWARDS, witness recalled on behalf of plaintiff, testified as follows:

DIRECT EXAMINATION.

By Mr. BURR:

Q. How much, if you know, is the slope from the upper end of Mr. Bennett's place to the marsh?

A. My notes show 28 feet from the water surface in the ditch to the swamp on the north end.

WITNESS EXCUSED.

---. ---. SHAW, recalled on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

By Mr. BURR:

Q. Mr. Shaw, you heard the testimony on the part of the defendant in regard to the character of water, from your experience in irrigation of the adjoining lands, would you say that two irrigations for each crop as testified by the defendant would be necessary?

A. Why, I think so.

Q. You think it would be necessary?

A. Unless it would be an unusually dry year.

Testimony of W. C. Muldrow.

Q. For the second and third crop?

A. I do not think last year I used any more than that. Well, I mean I did not use all of four years—I don't think for any year I used over six irrigations through the year. I used less when I irrigated for three crops three times through the year—Irrigated from four to six times for three crops.

Q. You irrigated from three to six times for the sixth crop?

A. Yes, sir; three crops.

Mr. BURR: I see.

WITNESS EXCUSED.

Mr. BURR: I would like to ask Mr. Muldrow.

W. C. MULDROW, recalled on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

By Mr. BURR:

Q. You heard Mr. Folmsbee testify in regard to the tract of land on the Carpenter place, that he was unable to raise alfalfa, did you not?

A. I did.

Q. Will you tell us the character of the cultivation on that tract?

A. I had occasion to be called down there by Mr. Carpenter to act in that capacity to look over that tract in regard to irrigation, and he figured putting water over it on the alfalfa, and the tract was underlaying river bottom just in old channels, so level it would be practically impossible to get any head of water. He had done a great deal of work this spring—had tried to do a good

Testimony of W. C. Muldrow.

deal more before attempting to irrigate—that is in leveling.

Q. He has changed it since?

A. He had intended at one time to raise alfalfa on it and gave it up. Now he wanted to put alfalfa in again.

Q. What is the condition of that piece of land today?

A. He has done a great deal of work on it this spring, but the time I examined it he was doing a good deal more of work in leveling.

WITNESS EXCUSED.

Mr. SMITH: That is all with the exception of this transportation matter of the allowance in loss of transportation. I think we would like to get this water at or about Mr. Bennett's north line. I believe that under the law he would be entitled to it there where he has been taking it heretofore; in other words that he could not be put in a worse position than he was.

Mr. BURR: If your honor please, the measurement of the water below the floodgate of that canal makes it impossible for any unprejudiced official, either on the part of the State or on the part of the Federal Government, under any act that I know of, to say whether or not Mr. Bennett is receiving his share of water, or whether he is not. It makes it absolutely impossible for anyone to tell, and the state law fixes the headgate as a place where we are able to get an impartial measurement of the water which the ditch is entitled to. To measure it at his headgate, the upper end of his land, is simply to throw the matter open to a state of anarchy, from which the government hopes to emerge by the

means of this suit; it was for that fully as much as in order to determine the water right that this case was brought. This case is intended to give to the state commissioner, appointed by the Superior Judge of the county, jurisdiction over the head gate of that canal in order to insure the safe passage past that head gate, as well as some six or eight purchasers of the water, to which the main canal of the Okanogan project is entitled. To give Mr. Bennett the water at the other point some mile or two below the head gate, is simply to throw the whole case open for an injunction case, or for contempt, or for something, in order to measure the amount of the delivery. I believe that under the act of 1907, under which the water commissioner was appointed, the Court is in a position to specify the amount at the head gate, with a proper amount for loss in transit to Mr. Bennett's land. That will place the matter beyond dispute and beyond interference on the part of the Government, and beyond interference on the part of any water users, among whom the United States is one.

The COURT: It is about a quarter of a mile from the head stream, as I understand it, to Mr. Bennett's place.

Mr. BURR: The place he drew his plea for is two or three miles below.

We are asking authority for the head gate of the ditch, which I think is far preferable from the legal standpoint, or practical standpoint, at the spillway. This whole matter will have to be fought out again in case this matter is left open. The Spring Coulee averaged

more, according to our figures, than it was entitled to, considering the contract. Even with the extreme Mr. Bennett was now getting, in order to get the matter pendente lite, we sought in that old decree handed down, we sought to name an inch to the acre for the purpose of investing in the water commissioner control over that head so we could get water by it.

Mr. SMITH: The distance from Mr. Bennett's north line to the intake ditch is something like a mile and a quarter. I am sure this Court has jurisdiction over this decree, and if Mr. Bennett is given the water at his place there, at his north line, about that, we are willing to forego any relief for any loss of transportation at all, we will take chances on it.

The COURT: I do not think the decree will have any practical effect so far as the Government is concerned, unless it shows the amount of water taken at the defendant's stream, at its head; it will be wholly inoperative otherwise.

Mr. SMITH: Do you purpose to give it to us from the spillway?

Mr. BURR: The point of measurement of the spillway down. We will give 1300 feet over this 280—we would add to the 15 per cent pro rata above the spillway. Do I make myself clear?

The COURT: Yes, that explains it.

Mr. BURR: I would be willing to add to that 15 per cent qualification from the spillway per cent, point of measurement, down to Mr. Bennett's place, such proportions as the length of the ditch above the spillway is to that below, at the rate of 15 per cent.

The COURT: What would that be practically?

Mr. BURR: I do not know the distance from the spillway down. Mr. Muldrow, I think, has it. Mr. Bonstedt—Mr. Castile, have you that figure from the spillway to the Bennett land?

Mr. BONSTEDT: I think Mr. Bennett's specifications is about right. It is not over a mile and a quarter—something between a mile and a mile and a quarter.

The COURT: A mile and a quarter from the spillway down?

Mr. BONSTEDT: No, from the headgate to Mr. Bennett's land.

The COURT: That would leave about a mile from the spillway probably to this land?

Mr. SMITH: We are up against another matter there. If he could take the water at the headgate we have got to take it past their spillway. If he took that spillway out or away, the water would be spilling down the creek.

The COURT: The dividing line will be wherever it is at the present time. If it is changed, it would have to be changed. I only put it so as to be uniform.

Mr. SMITH: If he took that spillway out of there——

The COURT: I will make it the spillway for the present as long as the dividing gate is there, unless you are going to change it right away.

Mr. BURR: I think we are going to put in a different headgate practically. We will have a measuring device in our headgate in accordance with the state law.

The COURT: Why didn't you put it in then according to the state law?

Mr. BURR: Why not put it there now?

The COURT: Well, it should be at the same place.

Mr. BURR: It should be at the same place, yes, but we have not had until this decree comes in—we have not had jurisdiction over that headgate; that is the point.

Now, the state commissioner, the water commissioner, will have jurisdiction over that and can put in a weir; the act requires him to see that the proper measuring device is at that point of diversion. Up to now we have not had jurisdiction over it, because Mr. Bennett has not been covered by a judication or contract, and has not been any place over which the court has jurisdiction.

The COURT: If you move it right away, I will place it at the head of the ditch.

Mr. BURR: That is satisfactory.

Mr. SMITH: I would like the decree to embrace that or take that up.

Mr. BURR: That is satisfactory. As long as he rotates, it seems to me that the acre foot basis in accordance with the man he rotates with, takes his water, and every old and new user receives it upon the acre foot basis—I think it would be better to have it on the acre foot basis.

The COURT: I do not care which way it is put.

Mr. SMITH: We would rather have it in cubic feet on the miner's inch, because they do not understand this

acre foot business up there. That is talked by the Government officials and those experts, and we know nothing about it. We do not know whether it is right or not right, but we do know something about the other two measurements.

The COURT: Of course, the state officer would only have to reduce it to the other measurement in order to comply with the law anyhow.

Mr. BURR: It seems to me that the equivalent is very easy, for this reason; for twelve hours and six minutes a second foot running makes one acre foot precisely.

The COURT: What is your system of delivery?

Mr. BURR: We have contracts.

The COURT: Do you deliver it whenever they demand it?

Mr. BONSTEDT: We deliver it upon notice.

Mr. SMITH: When you get ready.

Mr. BONSTEDT: No, we deliver it on forty-eight hours' notice, so as not to waste water, so we can't adjust our ditch for water there at the proper time, not before and not later.

Mr. BURR: That is immaterial on the Spring Coulee, because that order would be fixed by the state water commissioner; then they would have to arrange their distribution among themselves.

The COURT: Well, you are not concerned with that.

Mr. BURR: No, not concerned with it.

The COURT: Not yet.

Mr. BURR: As long as there are like two dozen water users, and they all receive it on the acre foot basis, in common with every old water user and new water user in the entire country, it seems to me that it would be the more proper way to have the Court decree. It is immaterial to me anyway to any vital extent.

Mr. SMITH: It does not concern them after the water is in the ditch.

The COURT: I think the decree should be based on the unit of measurement prescribed by the state law, otherwise the legislature doesn't need anything. Now, I understand that substantially forty inches under six inch pressure is equivalent——

Mr. SMITH: To a cubic foot.

The COURT: I understand substantially forty inches under six inch pressure is equivalent to a cubic foot, is the understanding.

Mr. BURR: I think it is thirty-eight, isn't it?

Mr. SMITH: We take forty for short in round figures.

The COURT: Do you desire to file a brief in this case.

Mr. BURR: I would like to.

Mr. SMITH: We don't care to.

The COURT: All right; I will file an opinion in the case, a brief opinion, as soon as the testimony is transcribed. How long do you want to file the brief.

Mr. BURR: Three weeks.

The COURT: Very well; that is satisfactory to me.

Mr. SMITH: If the Court please, in the first in-

stance we would not care to file a brief. We would rather submit it to the Court for your honor to decide without arguing. If they submit a brief, we would like to have a little time to answer it.

The COURT: I am going to award to these defendants just what I think they are entitled to under the state law before they went in there, and not impaired to any extent by subsequent legislation, and I think that question is fairly well settled by the Supreme Court decisions of the state. If there is nothing further, we will adjourn court till Monday morning at 10 o'clock.

Endorsements: Statement of Facts and Testimony.
Filed June 22, 1912.

W. H. HARE, Clerk.

By S. M. RUSSELL, Deputy.

No. 1271.

In the District Court of the United States, Eastern District of Washington, Northern Division.

UNITED STATES OF AMERICA,

Complainant,

vs.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Defendants.

OPINION.

Oscar Cain, U. S. Atty.

E. C. Macdonald, Asst. U. S. Atty.

Smith & Gresham, for defendants.

RUDKIN, District Judge. Under the provisions of the Reclamation Act of June 17, 1902 (32 Stat., 388), and the Act of the Legislature of the State of Washington entitled, "An Act relative to the appropriation of waters of the state for irrigation purposes, granting to the United States the right of exercising the power of eminent domain in acquiring lands, water and other property for rights-of-way, and for reservoir and other irrigation works, granting to the United States certain rights in state lands and waters of the state, relating to water users' associations, and declaring an emergency," approved March 4, 1905 (Laws of 1905, p. 180), the United States in the year 1905 appropriated all the unappropriated waters of Salmon River in Okanogan County, of this state. Long prior to that date the defendants herein and their predecessors in interest appropriated and diverted a part of the waters of Salmon River for the purpose of irrigating and reclaiming certain lands now owned in fee simple by the defendants, and it is conceded that the rights of the defendants are superior to the rights of the Government, to the extent of their prior appropriation and use of the waters appropriated for beneficial purposes. The extent of the preference or prior right of the defendants is therefore the only question presented for consideration on this hearing. The question thus presented is one of fact and an extended review of the testimony would serve no purpose. There is some dispute as to the number of acres actually irrigated by the defendants, but the Government claims that some thir-

teen acres of the defendants' land is rocky and cannot be profitably cultivated or irrigated, rather than disputes the fact that this part of the land has been in fact irrigated. Suffice it to say on this point that the land has been irrigated by the defendants for pasturage and other purposes; it is land for which water might be appropriated and was appropriated and used, and the fact that the Government or others might be able to use the water to better advantage and with greater profit on other lands in no manner militates against the right or title of the defendants. There is a wide and irreconcilable conflict in the testimony, or perhaps better say a wide difference of opinion, as to the quantity of water required to properly irrigate the land in question, varying as the testimony does, from two and one-half to three acre feet during an irrigating season of one hundred and twenty days, to one inch of water per acre, measured according to the custom of miners under a six inch pressure. The testimony clearly shows that the defendants' land has a gravelly, porous sub-soil and requires an unusual quantity of water to properly irrigate it. The crops grown by the defendants, consisting of alfalfa and timothy and clover, also require a greater quantity of water than do orchards and other crops that might be mentioned. The defendants have submitted a form of decree awarding to them two cubic feet of water per second of time for the sixty-three acres under irrigation, to be measured at the point of diversion. This is equivalent to about nine acre feet for an irrigating season of one hundred and fifty days. True, the testimony

shows that there is a loss of about twenty-five per cent from evaporation and seepage between the point of diversion and the point of use, but making due allowance for this loss I am satisfied that no such quantity of water is required for the proper cultivation of the defendants' land. I think an allowance of one and one-half cubic feet per second of time, to be measured at the point of diversion from the river, if properly used and husbanded, will be ample to supply all the needs of the defendants and will meet the full requirements of their prior appropriation. A decree will be entered accordingly.

In view of the form of the decree presented by the defendants I might suggest that no injunction can run against the United States, and it is the only party plaintiff. It is not to be presumed that the Government will deprive the defendants of rights decreed to them by one of its own courts, but if some officer of the Government should disregard the decree in the future the defendants must seek their remedy against the officer committing the wrong and cannot obtain relief against the government itself, without authority from Congress. In view of the fact that this is a proceeding to determine adverse claims to water, in which the defendants claim more than they are entitled to and the Government concedes less, no costs will be allowed either party.

Endorsements: Opinion.

Filed July 9, 1912.

W. H. HARE, Clerk.

By S. M. RUSSELL, Deputy.

No. 1271.

In the District Court of the United States, Eastern District of Washington, Northern Division.

UNITED STATES OF AMERICA,

Complainant,

vs.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Defendants.

DECREE.

This cause came on regularly for hearing and trial on the merits on the 31st day of May and the 1st day of June, 1912; the plaintiff appearing by Oscar Cain, United States Attorney, and E. W. Burr, Special Assistant to the United States Attorney, and the defendants appearing in person and by their attorneys, Smith & Gresham and W. W. Hindman, and the Court having heard all of the evidence and the arguments of counsel and being fully advised in the premises, and all the evidence in said cause now being on file in this court, it is hereby ORDERED, ADJUDGED and DECREED as follows:

I.

That the defendants are the owners in fee simple and in possession of the first right to divert, for irrigation, stock and domestic purposes from Salmon Creek, situated in Okanogan County, Washington, one and one-half ($1\frac{1}{2}$) cubic feet of water per second of time, to be measured at the point of diversion from the said river, during the irrigating season of each and every year,

which season is adjudged to be from April 15th to September 15th, and which is to be used upon the following described premises situated in Okanogan County, State of Washington, to-wit: The West half of the Southeast quarter of Section Thirty-six (36), Township Thirty-four (34) North, of Range Twenty-five (25) E. W. M., the Southwest quarter of the Northwest quarter and Lot Two (2) in Section Thirty-one (31), Township Thirty-three (33) North, of Range Twenty-five (25) E. W. M.

It is further ORDERED that if the plaintiff elects to measure water at any other place below the point of diversion from said river, the amount of water hereby awarded defendants shall be the same as fixed herein. It is further

ORDERED that the defendants and each of them be, and they are hereby, perpetually enjoined from diverting any greater amount of water from said stream than is herein awarded unto them. And it is further

ORDERED that neither party shall recover costs.

Done in open Court this 12th day of August, 1912.

(Signed) FRANK H. RUDKIN,
Judge.

Endorsements: Decree.

Filed August 13, 1912.

W. H. HARE, Clerk.

By S. M. RUSSELL, Deputy.

In the District Court of the United States, for the Eastern District of Washington, Northern Division.

UNITED STATES OF AMERICA,

Plaintiff,

vs.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Defendants.

ASSIGNMENT OF ERRORS.

Now, on this 20th day of September, A. D. 1912, comes the plaintiff, United States of America, by Oscar Cain, United States Attorney; E. C. Macdonald, Assistant United States Attorney, and E. W. Burr, Special Assistant to the United States Attorney, and says that the decree entered in the above cause on the 13th day of August, 1912, is erroneous and unjust to the plaintiff:

First: Because the defendants are awarded a greater amount of water than is necessary, with due economy, for the irrigation of their lands.

Second: Because the decree is based upon an erroneous ruling of the Court, that the defendants are entitled to use and maintain the same means employed by them in conveying water to their land and the application of said water thereon, that they had employed at the time of acquiring rights to said water, irrespective of whether such means employed by them were productive of due economy in the use of water.

Third: Because said decree was based upon a ruling of the Court that the defendants are entitled to as much water as was used by them in accordance with the usual course of husbandry in the district in which their lands are situate, irrespectively of whether or not such usual methods of husbandry are in accordance with due economy in the use of water.

Fourth: Because said decree awards the use of water to the defendants during a longer irrigation season than is shown to be necessary.

Fifth: Because the Court awarded defendants a greater quantity of water than is necessary for growing the principal crop of the country; and declined to enter a decree awarding, in the alternative, water sufficient for the growth of alfalfa, or for orchard purposes, accordingly as the lands under consideration might be devoted to such usage.

Sixth: Because said decree is contrary to the evidence as to the amount of water necessary for the cultivation of defendants' land.

Seventh: Because said decree awards to defendants vested rights in the water in controversy in excess of their necessities, the title to said water being in the public, under police powers of regulation, to be exercised with the view of obtaining the greatest possible use of the same.

WHEREFORE, The plaintiff prays that said decree may be modified and that the District Court be directed

to enter a decree in conformity with the evidence submitted in the case.

(Signed) OSCAR CAIN,
United States Attorney.

(Signed) E. C. MACDONALD,
Assistant United States Attorney.

(Signed) E. W. BURR,
Special Assistant to U. S. Attorney.

Endorsements: Service of a Copy of the within Assignment of Errors is hereby admitted, at Conconully, Washington, this 26th day of September, 1912.

(Signed) SMITH & GRESHAM,
Attorneys for Defendants.

Assignment of Errors.

Filed September 20, 1912.

W. H. HARE, Clerk.

By S. M. RUSSELL, Deputy.

No. 1271.

In the District Court of the United States for the Eastern District of Washington, Northern Division.

UNITED STATES OF AMERICA,

Plaintiff,

vs.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Defendants.

PETITION FOR APPEAL TO THE UNITED
STATES CIRCUIT COURT OF APPEALS,
FOR THE NINTH CIRCUIT, AND
ORDER ALLOWING SAME.

To the Honorable District Court of the United States
for the Eastern District of Washington:

The above named plaintiff, United States of America, conceiving itself aggrieved by the decree made and entered by said Court on the 13th day of August, 1912, in the above entitled cause, does hereby appeal from said decree to the United States Circuit Court of Appeals for the Ninth Circuit, for the reasons specified in the assignment of errors filed herein, and prays that its appeal be allowed, and that citation issue as provided by law, and that a transcript of the record, proceedings and papers upon which said decree was based, duly authenticated, may be sent to the United States Circuit Court of Appeals for the Ninth Circuit, sitting at San Francisco, California.

Dated this 20th day of September, A. D. 1912.

(Signed) OSCAR CAIN,

United States Attorney.

(Signed) E. C. MACDONALD,

Assistant United States Attorney.

(Signed) E. W. BURR,

Special Assistant to U. S. Attorney.

The foregoing petition of the plaintiff, United States of America, for an appeal to the United States Circuit

Court of Appeals for the Ninth Circuit, is hereby granted, and the appeal allowed.

Dated this 20th day of September, A. D. 1912.

(Signed) FRANK H. RUDKIN,
Judge.

Endorsements: Service of a Copy of the within Petition for Appeal and Order Allowing Same, is hereby admitted, Conconully, Washington, this 26th day of September, 1912.

(Signed) SMITH & GRESHAM,
Attorneys for Defendants.

Petition for Appeal and Order Allowing Same.

Filed Sept. 20, 1912.

W. H. HARE, Clerk.

By S. M. RUSSELL, Deputy.

No. 1271.

In the District Court of the United States for the Eastern District of Washington, Northern Division.

UNITED STATES OF AMERICA,

Plaintiff,

vs.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Defendants.

CITATION (Lodged Copy).

UNITED STATES OF AMERICA—ss.

THE PRESIDENT of the United States to W. S. Bennett and Josephine Bennett, his wife, GREETING:

YOU ARE HEREBY CITED AND ADMONISHED to be and appear at the United States Circuit

Court of Appeals for the Ninth Circuit, to be held at the City of San Francisco, State of California, within an appeal filed in the office of the Clerk of the United thirty (30) days from the date of this writ, pursuant to States District Court for the Eastern District of Washington, Northern Division, wherein the United States of America is appellant, and you, the said W. S. Bennett and Josephine Bennett, are appellees, to show cause, if any there be, why the decree in the said appeal mentioned should not be corrected and speedy justice should not be done to the parties in that behalf.

WITNESS, THE HONORABLE EDWARD DOUGLASS WHITE, Chief Justice of the Supreme Court of the United States of America, this 20th day of September, A. D. 1912, and in the Independence of the United States the one hundred and thirty-seventh.

(Signed) FRANK H. RUDKIN,
United States District Judge for the Eastern District of Washington.

(Seal.) (Signed) W. H. HARE,
Clerk of the United States District Court for the Eastern District of Washington.

Endorsements: Service of a copy of the within Citation is hereby admitted at Conconully, Washington, this 26th day of September, 1912.

(Signed) SMITH & GRESHAM,
Attorneys for Defendants.

Citation (Lodged Copy).

Filed September 20, 1912.

W. H. HARE, Clerk.

By S. M. RUSSELL, Deputy.

In the District Court of the United States for the Eastern District of Washington, Northern Division.

UNITED STATES OF AMERICA,

Plaintiff,

vs.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Defendants.

To the Clerk of the United States District Court for the Eastern District of Washington:

YOU ARE HEREBY DIRECTED, in making up your return to the citation on appeal herein, to include therein the following:

Complaint;

Answer;

Replication;

Testimony;

Opinion;

Decree;

Assignment of Errors;

Petition for Appeal, and Order Allowing Same;

Citation;

Admission of Service of Copy of Proposed Bill of Exceptions;

which comprise all of the papers, records and other proceedings which are necessary to the hearing of the appeal in said action in the United States Circuit Court of Appeals, and no other papers, records or other proceedings than those above mentioned need be included by you in making up your return to said citation as a part of such record.

Dated this 11th day of October, A. D. 1912.

(Signed) OSCAR CAIN,
United States Attorney.

(Signed) E. C. MACDONALD,
Assistant United States Attorney.

Endorsements: Praecipe for Transcript of Record.
Filed Oct. 12, 1912.

W. H. HARE, Clerk

By F. C. NASH, Deputy.

No. 1271.

*In the District Court of the United States, Eastern Dis-
trict of Washington, Northern Division.*

UNITED STATES OF AMERICA,

Appellant,

vs.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Appellees.

STIPULATION.

It is hereby STIPULATED and AGREED by and
between the parties hereto that the appellant may have
to and including the first day of November, A. D. 1912,
in which to print and file the transcript on appeal herein.

Dated this 7th day of October, 1912.

(Signed) OSCAR CAIN,
United States Attorney.

(Signed) E. C. MACDONALD,
Assistant United States Attorney.

(Signed) SMITH & GRESHAM,
Attorneys for Appellees.

Endorsements: Stipulation Extending Time to

Print and File Printed Record on Appeal.

Filed October 12, 1912.

W. H. HARE, Clerk.

By FRANK C. NASH, Deputy.

No. 1271.

*In the District Court of the United States, Eastern Dis-
trict of Washington, Northern Division.*

UNITED STATES OF AMERICA,

Appellant,

vs.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Appellees.

STIPULATION.

It is hereby STIPULATED by and between the parties hereto, by their respective attorneys, that the United States of America, appellant in said cause, may have to and including the 15th day of November, A. D. 1912, in which to serve and file the transcript on appeal herein.

Dated this 21st day of October, A. D. 1912.

(Signed) OSCAR CAIN,

United States Attorney,

(Signed) E. C. MACDONALD,

Assistant United States Attorney.

(Signed) SMITH & GRESHAM,

Attorneys for Appellees.

Endorsements: Stipulation extending time for printing record until November 15, 1912.

Filed October 24, 1912.

W. H. HARE, Clerk.

By FRANK C. NASH, Deputy.

In the District Court of the United States, Eastern District of Washington, Northern Division.

No. 1271.

UNITED STATES OF AMERICA,

Complainant,

vs.

W. S. BENNETT and JOSEPHINE BENNETT,
his wife,

Defendants.

CLERK'S CERTIFICATE TO TRANSCRIPT OF
RECORD.

UNITED STATES OF AMERICA,

EASTERN DISTRICT OF WASHINGTON—ss.

I, W. H. Hare, Clerk of the District Court of the United States for the Eastern District of Washington, do hereby certify the foregoing printed pages, numbered from 1 to 253, inclusive, to be a full, true, correct and complete copy of so much of the record, papers, testimony and other proceedings in the above and foregoing entitled cause as is called for by the complainant and appellant in its praecipe therefor as the same appears on page 250 of this printed record, and as the same remain of record and on file in the office of the Clerk of said District Court, and that the same constitute the record on appeal from the order, judgment and decree of the District Court of the United States for the Eastern District of Washington, Northern Division, to the Circuit Court of Appeals for the Ninth Judicial Circuit, San Francisco, California.

I further certify that I hereto attach and herewith transmit the Original Citation issued in this cause.

I further certify that the cost of printing the foregoing transcript is the sum of \$261.00.

I further certify that the fees of the Clerk of this Court for preparing, supervising and certifying to the foregoing printed record, under Rule 101 of the Rules of this Court, amounts to the sum of \$134.20, which sum will be included in my quarterly account as Clerk against the United States for the quarter ending December 31, 1912.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said District Court at Spokane, in said District, this 8th day of November, 1912.

(Signed) W. H. HARE,

(Seal)

Clerk.

3

IN THE
United States Circuit Court of Appeals
FOR THE
NINTH CIRCUIT.

UNITED STATES OF AMERICA,

Appellant,

vs.

W. S. BENNETT and JOSEPHINE
BENNETT, His Wife,

Appellees.

APPELLANT'S OPENING BRIEF

UPON APPEAL FROM THE UNITED STATES
DISTRICT COURT FOR THE EASTERN
DISTRICT OF WASHINGTON,
NORTHERN DIVISION.

OSCAR CAIN,

United States Attorney.

EDMOND J. FARLEY,

Assistant United States Attorney.

E. W. BURR,

Special Assistant

to the United States Attorney.

Attorneys for Appellant.

STATEMENT OF THE CASE.

This is an appeal from the decree of the United States District Court for the Eastern District of Washington, in a suit in equity brought to restrain appellees from diverting an amount of water in excess of two and one-half ($2\frac{1}{2}$) acre feet per annum for the irrigable portion of the lands described in paragraph six (6) of the bill of complaint.

In the year 1905, under the provisions of the Reclamation Act of June 17, 1902 (32 Stat. L. 388), and the Act of the Legislature of the State of Washington, Approved March 4, 1905 (Laws of 1905, p. 180), the United States appropriated all of the unappropriated waters of Salmon River in the County of Okanogan, State of Washington.

Prior to that date appellees and their predecessors in interest appropriated and diverted a part of the waters of said Salmon River for the purpose of irrigating and reclaiming their lands. On February 15, 1912, appellant began a suit in the United States Court for the Eastern District of Washington to restrain appellees from using a greater amount of water than was necessary for the irrigation of said lands, alleging that, of the lands described in paragraph six, fifty acres are irrigable; and that two and one-half ($2\frac{1}{2}$) acre feet per annum of water is sufficient to properly irrigate the same.

Appellees contend that sixty-two and 82-100 acres of said lands are irrigable; and that two cubic feet

per second of time are necessary for the successful growing of crops upon said lands.

The Court, after hearing the testimony and evidence, found that appellees are entitled to use water upon sixty-two and 82-100 acres, and that appellees are entitled to the use of one and one-half ($1\frac{1}{2}$) cubic feet per second of time for a season of five months, to-wit: from April 15th to September 15th, of each year; or, what is equivalent to seven and three-tenths ($7\frac{3}{10}$) acre feet per acre.

SPECIFICATION OF ERRORS.

The Court erred—

FIRST: Because the defendants are awarded a greater amount of water than is necessary, with due economy, for the irrigation of their lands.

SECOND: Because the decree is based upon an erroneous ruling of the Court, that the defendants are entitled to use and maintain the same means employed by them in conveying water to their land and the application of said water thereon, that they had employed at the time of acquiring rights to said water, irrespective of whether such means employed by them was productive of due economy in the use of water.

THIRD: Because said decree was based upon a ruling of the Court that the defendants are entitled to as much water as was used by them in accordance with the usual course of husbandry in the district in which their lands are situate, irrespective of whether or not such usual methods of husbandry are in accordance with due economy in the use of water.

FOURTH: Because said decree awards the use of water to the defendants during a longer irrigation season than is shown to be necessary.

FIFTH: Because the Court awarded defendants a greater quantity of water than is necessary for growing the principal crop of the country; and declined to enter a decree awarding, in the alternative, water sufficient for the growth of alfalfa, or for orchard purposes, accordingly as the lands under consideration might be devoted to such usage.

SIXTH: Because said decree is contrary to the evidence as to the amount of water necessary for the cultivation of defendants' land.

SEVENTH: Because said decree award to defendants vested rights in the water in controversy in excess of their necessities, the title to said water being in the public, under police powers of regulation, to be exercised with the view of obtaining the greatest possible use of the same.

ARGUMENT.

LOCATION OF APPELLEE'S LAND AND CONDITION OF THE SOIL.

Although appellant makes several assignments of error, they all resolve themselves into one question—did the Court allow appellees more water than is necessary for the irrigation of their land. We will therefore not attempt a separate discussion of the assignments.

Before proceeding with the argument of the facts and the law in this case, it is important that we

consider briefly the questions of the location of appellees' land and the condition of the soil with a view to ascertain the amount of water necessary to properly irrigate the same.

It appears that appellees' land is located in a valley, with steep hills on both sides. It is a body of land about a mile long and varying from fifty to seven hundred feet wide. (Transcript p. 48). It also appears from the testimony that there is seepage to the land from the hills; that is, that land situated as this is next to the hills, there is seepage from the mountains which tend to supply moisture, whereas the same amount of bench land would require more water to irrigate it. (Trans. p 48). There seems to be some coulees either leading to, or upon appellees' land, in which there are three or four springs (Trans. p. 49), which, in like manner, makes it possible to irrigate with less water than is required for the average land; and the annual rainfall is shown to be over 11 inches.

Upon appellees' land there is a marsh in which water stands almost continuously; a marsh covering over twenty acres of land. (Trans. pp. 34-122). The highest point of appellees' land lies less than fifteen feet above the marsh, and one-third of their land lies less than four feet above the surface of the water in the marsh. It appears also that in the summer, during the irrigation season, the water runs out from the marsh at the rate of about one cubic foot per second of time. (Trans. pp. 34-110). The testimony also shows that there is a well in which the water stands

or raises to within five or six feet of the surface of the ground. (Trans. p. 127).

All this would indicate one of two things—either the land is supplied with an abundance of moisture by nature; or, that an excessive amount of water is permitted to flow upon the land, either by over-irrigating or by wild flooding. It is generally known of alfalfa, which is appellees' principal crop, that the roots of the alfalfa will go to a considerable depth down to the moisture. If it is true that the water stands in the marsh almost continuously and to the extent that the water flows from it at the rate of one cubic foot per second, which is not denied; and that the water stands in the well within five or six feet of the surface of the ground, which would bring the water plane within about four feet below the surface of the land; if all these things are true, it is evident that the land is not such as would require an excessive amount of water to properly irrigate it, but on the contrary, as has been testified to, would require less than the ordinary land. (Trans. p. 54).

As to the nature of the soil there is a wide range in the testimony. Appellant's witnesses say that it is in part volcanic ash and the balance is a good, substantial soil. Appellees' witnesses say that it is, in the main, a good loam ranging from 12 to about 15 inches deep, underlaid with a strata of gravel of from 6 to about 24 inches; and all of appellees' witnesses seem to agree that beneath the gravel there is a gumbo sub-soil.

Taking even the best construction that can be placed on the testimony of appellee's witnesses, even in the absence of the favorable conditions surrounding the land, it must appear evident that the soil is not such as would require an excessive amount of water; and, when we consider the location of the land, the marsh on the land from which the water flows at the rate of one cubic foot per second, and the fact that the water plane is within about four feet of the surface of the land, when we consider all of these things it is evident that the land can be irrigated with an amount of water much less than the ordinary land.

AS TO THE DUTY OF WATER IN GENERAL.

Appellant makes no contention against the Court's finding as to the number of acres upon which appellees are entitled to use water. What it does contend is that the Court erred in allowing appellees an amount of water in excess of their actual needs as tested by economical methods of irrigation.

As to the duty of water, we believe an examination of the records will disclose a great preponderance of the evidence in favor of the duty of water contended for by the Government.

The testimony of witness Bonstedt (Trans. p. 50) is to the effect that for growing crops of forage, two and one-half ($2\frac{1}{2}$) acre feet are necessary on volcanic ash soil and four and one-half acre feet are sufficient on sandy soil; and that he would class defendants' land as volcanic ash soil.

Witness Castile (Trans. p. 82) states that under the Sunnyside project three acre feet are sufficient for

the successful growing of alfalfa; and that more water is required on the Sunnyside project than on defendants' land.

Witness Hendrick (Trans. p. 91-92), who farms in the vicinity of defendants' land, says that he can raise good crops of alfalfa on two and one-half ($2\frac{1}{2}$) acre feet.

Witness George (Trans. pp. 108-109) farms volcanic ash soil, in the vicinity of defendants' land, underlaid with gravel, boulders and sand, and grows good crops of alfalfa on two and one-half ($2\frac{1}{2}$) acre feet.

Witness Shull (Trans. pp. 108-109) farms land in the vicinity of defendants' land, and with three acre feet at the intake of his ditch, and two and one-half acre feet at the point of application, grows good crops of alfalfa; and thinks that his land requires more water than does defendants'.

Laughlin McClain (Trans. pp. 114, 115, 116, 117) is a constructor of irrigation systems; is familiar with the duty of water under several irrigation systems, where climatic and other conditions are similar to those which surround defendants' land, and states that the duty of water in other places is as follows: Under the Methow project one cubic foot to 100 acres; under the Fruitland project, one cubic foot to 160 acres; under the Wenatchee project, one cubic foot to 100 acres.

It will be observed that all of the witnesses above referred to base their estimate upon actual experience in the use of water for irrigation upon lands of the same character as those of appellees and surrounded

by similar climatic conditions. The witnesses for appellees on the contrary merely give an opinion that the duty of water contended for by the government is insufficient. We do not recall a single one who testified that he had made actual examination to determine that a less amount of water would not suffice.

For the purpose of casting a little light on the question of the amount of water necessary to properly irrigate lands, we quote the following from the statutory enactments of other states, to-wit:

In Idaho, one second foot for each fifty acres. (Session law 1903, page 233, sec. 9, as amended laws of 1905, page 174).

In Nebraska, one cubic foot per second for each seventy acres of land. (Session laws 1911, page 505, sec. 19).

Nevada, three acre feet per annum. (Sec. 5, Act of February 26, 1907).

New Mexico, one cubic foot for each eighty acres. (Act of March 1st, 1905, sec. 49).

Wyoming, one cubic foot per second for each seventy acres. (Wyoming Stat. 1910, sec. 777).

North Dakota, one second foot for each eighty acres. (Act of March 1st, 1905, sec. 49).

The above statutes fixing the maximum to be used will give the Court some idea about the amount of water which is deemed sufficient in other jurisdictions; and, the testimony of the witnesses in this case shows that the duty of water on other projects and other places in Washington is, as placed by appellant's witnesses, from two and one-half to three acre feet,

and that appellees' land is such as would require less than the ordinary lands; while, in this case, the Court has decreed to appellees one and one-half cubic feet of water per second of time, during a season of five months, to-wit: from April 15th to September 15th, which is equivalent to seven and three-tenths acre feet per acre—an amount greatly in excess of what is required.

AS TO THE LENGTH OF THE IRRIGATION SEASON.

In addition to awarding the appellees one and one-half cubic feet of water per second of time, the Court by its decree (Trans. p. 242) adjudged the irrigation season to be from April 15th to September 15—a season of five months. This, we contend, is not supported by the evidence.

Witness Muldrow, who is an irrigation engineer, fixes the season at four months (Trans. p. 44); witness Bonstedt gives it as his opinion that irrigation is not necessary either in April or September; that is, that wafer is required only during a season of four months (Trans. pp. 60-61); witness George raises three crops of alfalfa, irrigating from April 25th to July 21st (Trans. pp. 98-99); and, generally, throughout the entire record there is a total lack of evidence to support a longer irrigation season than four months, or during May, June, July and August.

The length of the season is important when we consider that the continuous flow of one and one-half second feet for a period of 30 days would aggregate

90 acre feet, or sufficient, with losses in transmittal, for the irrigation of 30 acres of land annually, if stored by the reclamation service in its storage reservoirs for the use of the Okanogan project.

That the Court may regulate the irrigation season in order to guard against early and late irrigation, without resulting benefit, curtail the right to store water which would otherwise be used during the height of the irrigation season, is well settled.

"An appropriation awarded to a ditch may be limited not only as to volume by its carrying capacity, but also by time—that is, the use of water through it is limited by its carrying capacity, and as to duration by the necessity of the use—and it may also be restricted to some particular season or time of the year."

Windsor R. & C. Co. v. Lake Supply Ditch Co., 98 Pac. (Colo.) 734.

It is evident from the foregoing that the award to appellees should be cut down, not only as to the amount per second of time, but that the season should be shortened by about thirty days; that is, that the irrigation season should be adjudged to be from May 1st to September 1st.

APPELLEES CAN ACQUIRE NO RIGHTS TO WASTEFUL USE OF WATER.

From the evidence in this case it is apparent that appellees have been using wasteful methods in irrigation; and, due undoubtedly to their early training, find it difficult to unlearn some of the things they have learned. Appellees' methods are described by witness

Muldrow (Trans. p. 33) "As wild flooding; that is, the water is simply turned out and allowed to flow in a general direction down across the land without any system of levees or regular furrow system." He says further (Trans. p. 34): "Well, Mr. Bennett's land lies in a coulee which is similar to the typical coulee in this country and slopes toward the center, and in the center there is a swamp of about fifteen acres or so, where the water stands in the irrigation season and runs off there and through a drain down at the lower end." Appellee W. S. Bennett, regarding his methods, testifies as follows (Trans. p. 205): "I don't believe there ever was a man that irrigated in his life but what at times has wasted water. * * * I have left it at times run into that swamp right close to that swamp there is a little piece of land—there is some alkali on it—I flushed that piece of land quickly—what we call flushed it—run water over it quickly—to get that tall rank start of the first crop of alfalfa. After you get the first crop started it goes good. I flushed it, let the water run right into that swamp; that is when I first came in there and that is the way I was accustomed to irrigate." After testifying that he had done away with the levee system on his land (Trans. p. 207), he says: "It requires—it is more trouble to me to irrigate that way—it is more bother to be made that way." Again, speaking of the amount of water necessary to irrigate (Trans. p. 204), he says: "Well, I don't believe any one irrigator can irrigate it with less than an inch to the acre; it has got to be—another thing, you can't irrigate it

western style and irrigate it. You can't get up at 9 o'clock in the morning and get your breakfast late, and get out and change your water, and quit early in the evening and go to town between times and irrigate that with an inch. A great many people irrigate and have pleasures; I can't do it." From the foregoing it is evident that appellees' methods are wasteful; and, unless they have acquired a vested right in any manner of use, water cannot be awarded to them on any such basis.

The Court at the conclusion of the trial said: "I am going to award these defendants just what I think they are entitled to under the state law before they went in there, and not impaired to any extent by subsequent legislation, and I think that question is fairly well settled by the Supreme Court decisions of the state." (Trans. p. 238). From this it is evident that the Court assumed and acted upon the theory that appellees' rights to the use of water were different prior to the time they went in there than at the present time. The Court evidently assumed that whereas the appellees were then permitted to use a large amount of water they can now use the same amount. We submit that such is not the law.

It is fundamental that water flowing in a natural channel is not the subject of private ownership. The only private right that may attach to water so flowing is the right of use, and the right of use may be regulated by the sovereign authority, which may also prescribe the character, quantity and extent of the use which may be acquired therein. The right to

the use of water throughout the west is limited to beneficial purposes. No one can acquire a right to divert from all common public source more water than he can use beneficially by reasonably economical methods, and with a due regard for the rights of others.

If any individual has at any time, whether now or in the past, used more water than he could put to beneficial use it was, not because he had any right to any more water than was reasonably necessary, but because he could use it without infringing upon the rights of others; it was merely permissive, as will appear from the following authorities. Independent of statutory provisions the Courts have almost universally held that the right to the use of water is limited to the beneficial use.

Kinney on Irrigation & Water Rights (1912, 2nd Ed. at page 1541, says:

“As the population of this western country has increased and the demand for water has correspondingly increased, the principle of ‘beneficial use’ is becoming each year in all jurisdictions more and more strictly enforced. More stringent regulations may still be made in certain jurisdictions, which will benefit not only those who at present have water rights in certain streams, but also those subsequent who need the water and desire to appropriate sufficient for their purposes. There are many appropriators who still demand the amount of water claimed by them at first, although the amount is many times more than was originally or is now needed by them for the purpose to which they apply it. At an early day, and when they first made the appropriation, the settlers had no knowledge whatever of the proper amount of water necessary to irrigate certain tracts of land; and there

was at that time an entire absence of written authority from which they could learn, and water then being plentiful, it followed, as a matter of course, that the settlers claimed extravagant amounts, and also used very wasteful methods in the diversion and use of it."

Continuing at pages 1612-13, the same author, after stating that the ever-increasing demand upon the water supply makes an increase of the water supply improbable, says:

"A more economical use of the available supply and an entire suppression of the wasting of water are, then, the only ways in which new fields and new orchards may be provided for; but this must be done without injury to the rights of those who are at present using the water. But as an appropriator acquires no title to the *corpus*, or *every body of the water*, and only acquires a right to the use of such a quantity of water within the extent of his appropriation as he can use economically and without waste, he can not lawfully acquire a right to an excessive amount of water for the purpose for which he appropriates it, nor can he acquire a right to use the water in a wasteful manner and thereby deprive others from its use."

In *Hough v. Porter*, 98 Pac. 1102, the Court says:

"In this arid country such manner of use must necessarily be adopted as will insure the greatest duty possible for the quantity available. *Van Camp v. Emery*, 13 Idaho, 202, 89 Pac. 752; *Anderson v. Bassman* (C. C.) 140 Fed. 14, 27. The wasteful method so common with early settlers can, under the light most favorable to their system of use, be deemed only a privilege permitted merely because it could be exercised without substantial injury to any one; and no right of such methods of use was acquired thereby. Owing to the little demand and large proportionate supply in use by those along Silver creek and its branches in the early 80s, together with the lack of

general knowledge and experience on the subject throughout the state, wasteful methods at that time were, no doubt, common; but of recent years improved means throughout the West have come into use, and a scarcity of the supply has made a more economic use necessary. *The result is that the law has become well settled that beneficial use and needs of the appropriator, and not the capacity of the ditches, or quantity first applied, is the measure and limit of the right of such appropriators.* Kinneg, Irr. 30; Long, Irr. secs. 54, 55; Wiel, Water Rights p. 263; Seaward v. Pacific Light Co., 49 Or. 157, 88 Pac. 963; Gardner v. Wright, 49 Or. 609, 91 Pac. 286; Union Mill Co. vs. Dangberg (C. C.) 81 Fed. 73, 119; Anderson v. Bassman (C.C.) 140 Fed. 26."

The case of Shafford v. White Bluff etc. Co., 63 Wash. 10, is a most interesting as well as instructive case. In that case the question involved was the right of the user of water under a contract to insist upon any manner of use. Reading at page 14, Chadwick, J., says:

"Neither must it be held, in the strict sense, that any one has a right to use water at will. Flowing waters are free to all, and only so far as sanctioned by custom or statute may they be put to private uses. While the cry 'There is land for all' has sustained us in our disposition of the public domain, we are met at the outset of our irrigation policies by the fact that there is not, and probably never will be, even with perfect practice, water for all. It has been said that, 'The forest and water problems are perhaps the most vital internal question in the United States.' Newell, chief of the division of hydrography of the United States Geological Survey, in his work on Irrigation, notes the fact that there has been but little progress in the practice of irrigation, 'due largely to the fact that the men who are now bringing in the

lands under ditch have for the most part received their training as farmers in the humid regions, and find it difficult to unlearn many facts which they regard as fundamental.' "

Quoting further from Newell (page 216), he says:

'With the gradual development of the country and the bringing of more and more land under ditches, the need for water increases, and equity demands that no irrigator take more than he can put to beneficial use. Flowing water must be considered as a common fund, subject to beneficial use by individuals according to orderly rules, each man taking only the amount he can employ to advantage. Under any other theory full development of arid regions is impossible.'

Again quoting from the same author (page 215), he says:

'The farmers, being accustomed to the use of large quantities of water, often find it exceedingly difficult to get along with less and continue to use excessive amounts, often to their own disadvantage * * * Some of them actually waste water to their own detriment from the mistaken belief that in so doing they are establishing a perpetual right to certain quantities.'

The foregoing authorities show conclusively that unless the Courts establish and maintain the rule contended for by appellant that progress is impossible. Granting that appellees' rights relate back to the time of the appropriation, yet it is clear that they did not then, any more than they now have the right to use any more water than they could put to a beneficial use.

USE OF WATER A SUBJECT OF POLICE REGULATION.

The doctrine of beneficial use of water, as is plainly shown by the foregoing authorities, is well settled in the western states. The subject, however, is of such great importance that almost every state in the arid regions of the West has exercised its police power in regulating its use.

This exercise of the police power is universally sustained by the Courts, not only with reference to rights acquired subsequent to the passage of the law, but also with reference to rights previously vested. If it were otherwise it would do away with the right of the sovereign to insist upon an economical use of water. The early settler, when but few persons were making demands upon the water supply, might irrigate by wasteful and extravagant methods; and if, after the country is settled and the water needed for beneficial use by others, they may by pursuing these methods deprive other settlers of water, it would mean that the early settler can acquire the right by prescription to waste the water of the common supply. Such is not the law, and on this point we cite a few authorities.

The case of *Lindsley v. Natural Carbonic Gas Co.*, 220 U. S. 61, is a very well considered case. In 1908 the legislature of New York passed an act for the protection of natural mineral springs of the state and to prevent the waste of the state's natural mineral waters. The statute was attacked upon the ground that it violated the 14th amendment in that it deprived

the gas company of its property without due process of law. Quoting from the case of *Ohio Oil Co. v. Indiana* (177 U. S. 190), reading at page 75, the Court says:

"They (meaning the surface owners) could not be absolutely deprived of this right which belongs to them without a taking of private property. But there is a coequal right in them all to take from a common source of supply the two substances which, in the nature of things, are united, though separate. It follows, from the essence of their right and from the situation of the things as to which it can be exerted, that the use by one of his power to seek to convert a part of the common fund to actual possession may result in an undue proportion being attributed to one of the possessors of the right, to the detriment of the others, or by waste by one or more, to the annihilation of the rights of the remainder. Hence it is that the legislative power, from the peculiar nature of the right and the objects upon which it is to be exerted, can be manifested for the purpose of protecting all the collective owners by securing a just distribution to arise from the enjoyment by them of their privilege to reduce to possession and to reach the like end by preventing waste. * * * Viewed, then, as a statute to protect or to prevent the waste of the common property of the surface owners, the law * * * which is here attacked because it is asserted that it divested private property without due compensation, in substance, is a statute protecting private property and preventing it from being taken by one of the common owners without regard to the enjoyment of the others."

Again, speaking of the pumping operations in obtaining mineral water, reading at page 77, the Court says:

"Thus these pumping operations generally result in an unreasonable and wasteful depletion of the com-

mon supply and in a corresponding injury to others equally entitled to resort to it. It is to correct this evil that the statute was adopted, and the remedy which it applies is an enforced discontinuance of the excessive and wasteful features of the pumping. It does not take from any surface owner the right to tap the underlying rock and to draw from the common supply, but, consistently with the continued existence of that right, so regulates its exercise as reasonably to conserve the interests of all who possess it. That the state, consistently with due process of law, may do this is a necessary conclusion from the decision in the case cited. But were the question an open one we still should solve it in the same way."

The legislature of the state of Washington has expressed the public policy of the state in very explicit terms on the subject of conservation of its public waters. Section 6346 Rem. & Bal. Annotated codes reads as follows:

"During the irrigation season it shall not be lawful for any person to run any greater quantity of water through his irrigating ditch than is absolutely necessary for irrigating his land, or the land of other persons, as provided for in section 6380, and for domestic and stock purposes. And any person who shall wilfully violate the provisions of this section shall be deemed to be guilty of a misdemeanor, and upon conviction thereof shall be fined in an amount not less than one hundred dollars nor more than one thousand dollars, which fine shall go into the county school fund of the county in which the offense is committed."

Exercise of police powers with regard to previously acquired water rights was in issue in the case of *White v. Farmers' Highline Canal & Reservoir Co.*, 43 Pac. (Colo.) 1028. The Court, after holding that the regulation of the use of water was a valid exercise

of police power, and citing the Sinking Fund Cases, 99 U. S. 700 and *Beer Co. v. Mass.* 97, U. S. 25, turns to the consideration of the objection that the contract under which the defendant claimed, was executed prior to the passage of the act exercising police power. It was held that the prior rights of the parties were subject to regulation and control under the terms of the act of the state legislature passed subsequent to the acquisition of the title to the water rights. Reliance was had on the case of *Fertilizing Co. vs. Hyde Park*, 97 U. S. 659, and numerous other United States Supreme Court and New York cases.

Wiley v. Decker, 73 Pac. 210.

Montezuma Canal Co. v. Smithville Canal Co., 218 U. S. 371.

Nash v. Clark, 75 Pac. 371-374; affirming 198 U. S. 361.

Even though it could be said that the rights of appellees were then different from that which they now possess, yet it is evident from the foregoing that the state by the exercise of its police power could regulate the manner of use and prevent the waste of its public waters.

CONCLUSION.

In conclusion will say that we have shown that appellees' land is favorably situated for easy irrigation, between the mountains from which there is a seepage; that in the center of the land there is a swamp from which water flows during the irrigation season at the rate of one cubic foot per second of time; that

the water plane is within about four feet of the surface of the ground; that the soil is of such a nature that it can be easily irrigated; and, we have seen that the duty of water in that country, upon lands less favorably situated, is from two and one-half to three acre feet per acre, and that in other states the maximum is fixed by statutes at about the same amount; so that, taken altogether, it is plain that appellees' land can be properly irrigated with not to exceed two and one-half acre feet, and yet the Court has awarded to appellees one and one-half cubic feet per second of time for a season of five months, which, by adding the annual rainfall of over eleven inches, is equivalent to over eight acre feet per acre, or more than double the duty of water in any other place.

Keeping in mind the swamp in the center of the land and the flow of water therefrom, we cannot escape the conclusion that the land is either supplied with a great deal of moisture by seepage or otherwise, or that appellees methods are wasteful; and, if the former, it is evident that the land needs but a small amount of water to properly irrigate it, and, if the latter, it is the duty of the Court to prevent such waste to the end that others may put the same to beneficial use.

We have seen that appellees' methods of irrigation are wasteful; they are described by witnesses as wasteful, and appellee Bennett himself by his testimony shows that they are wasteful; but he says: "That is the way I am used to irrigate, it is less bother." If the Courts in determining the amount of water to

be awarded to any given appropriator are to consider the methods, then progress is impossible. The water supply is limited, the demands for water is increasing, and, if the irrigator who in the early days was permitted to use wasteful methods because he could do so without interfering with the rights of others and thereby acquires a right to the use of a greater amount of water than is reasonably necessary to the proper irrigation of his land, it is evident that he thereby acquires the right to waste water—which cannot for one moment be sanctioned by the law.

It does not mean that the Courts should compel individuals to use any particular method, but it does mean that he shall not use wasteful methods at the expense of others. The Court, having considered the nature of the soil and all other circumstances surrounding the land, should award to an irrigator an amount of water sufficient to irrigate his land such as would be needed by an irrigator of ordinary skill and by reasonable methods; then, if he desires to use methods which are wasteful, the loss will be his and shall not fall upon others. He, after using his methods, should not be permitted to come into Court and insist that he has acquired a right to waste water because twenty years ^{ago} he did so.

But it may be said that the Court has not considered appellees' methods in making the award. If that be true, then the amount awarded by the decree must be cut down, either by cutting down the per second flow, or the length of the season, or both; for under no other theory could the decree be permitted to stand. It cannot be seriously contended that, con-

sidering the duty of water in the western states generally, the duty in the state of Washington, and the duty in the locality of appellees' land, that the doctrine of beneficial use demands an award to appellee's of one and one-half cubic feet per second of time, or what is equivalent to seven and three-tenths feet, which taken with the annual rainfall, amounts to over eight acre feet per acre, and this when it is plain from the evidence that on lands less favorably surrounded than appellees the duty is not to exceed from two and one-half acre feet.

We submit that the amount of water awarded to appellees by the decree of the Court must be cut down by at least one-half by cutting the per second feet and the length of the season.

Respectfully submitted,

OSCAR CAIN,
EDMOND J. FARLEY,
E. W. BURR,